Notebook Diff

Base

Remote

---
2 unchanged cell(s) hidden

In [ ]:   Cell ID: 04657f00   In [1]:   Cell ID: 04657f00

```
(…7 unchanged lines…)
8  from crewai import Flow
9  from crewai.flow.flow import listen, start
10
11 import time
12
(…17 unchanged lines…)
```

```
(…7 unchanged lines…)
8  from crewai import Flow
9  from crewai.flow.flow import listen, start
10 import pandas as pd
11 import textwrap
12 import time
13
(…17 unchanged lines…)
```

Outputs unchanged ▾

---
7 unchanged cell(s) hidden

In [6]:   Cell ID: ad39d218-6727-4055-8ea7-c1610631f4ab   In [5]:   Cell ID: ad39d218-6727-4055-8ea7-c1610631f4ab

```
1  import warnings
2
3  warnings.filterwarnings(
4      "ignore",
5      message=".*PydanticDeprecatedSince20: Using extra keyword arguments on `Field` is deprecated.*",
6  )
7  from crewai_tools import SerperDevTool, ScrapeWebsiteTool
```

Outputs changed ▲

Output added

```
/Users/prasanth.thangavel/miniconda3/envs/py_3_12_crewai/lib/python3.12/site-packages/pydantic/fields.py:1093: Pydanti
  warn(
```

---
1 unchanged cell(s) hidden

In [7]:   Cell ID: 57e0ba2e-a86a-4a20-ab38-62eb89abdf57   In [6]:   Cell ID: 57e0ba2e-a86a-4a20-ab38-62eb89abdf57

```
1  # Creating Agents
2  lead_data_agent = Agent(
3      config=lead_agents_config["lead_data_agent"],
4      tools=[SerperDevTool(), ScrapeWebsiteTool()],
5  )
6
7  cultural_fit_agent = Agent(
8      config=lead_agents_config["cultural_fit_agent"],
9      tools=[SerperDevTool(), ScrapeWebsiteTool()],
10 )
11
12 scoring_validation_agent = Agent(
13     config=lead_agents_config["scoring_validation_agent"],
14     tools=[SerperDevTool(), ScrapeWebsiteTool()],
15 )
16
17 # Creating Tasks
18 lead_data_task = Task(
19     config=lead_tasks_config["lead_data_collection"], agent=lead_data_agent
20 )
21
22 cultural_fit_task = Task(
23     config=lead_tasks_config["cultural_fit_analysis"], agent=cultural_fit_agent
24 )
25
26 scoring_validation_task = Task(
27     config=lead_tasks_config["lead_scoring_and_validation"],
28     agent=scoring_validation_agent,
29     context=[lead_data_task, cultural_fit_task],
30     output_pydantic=LeadScoringResult,
31 )
32
33 # Creating Crew
34 lead_scoring_crew = Crew(
35     agents=[lead_data_agent, cultural_fit_agent, scoring_validation_agent],
36     tasks=[lead_data_task, cultural_fit_task, scoring_validation_task],
37     verbose=True,
38 )
```

In [8]:   Cell ID: fcd0e4d3-a150-4354-8deb-59c1758026fe   In [7]:   Cell ID: fcd0e4d3-a150-4354-8deb-59c1758026fe

```python
# Creating Agents
email_content_specialist = Agent(config=email_agents_config["email_content_specialist"])

engagement_strategist = Agent(config=email_agents_config["engagement_strategist"])

# Creating Tasks
email_drafting = Task(
    config=email_tasks_config["email_drafting"], agent=email_content_specialist
)

engagement_optimization = Task(
    config=email_tasks_config["engagement_optimization"], agent=engagement_strategist
)

# Creating Crew
email_writing_crew = Crew(
    agents=[email_content_specialist, engagement_strategist],
    tasks=[email_drafting, engagement_optimization],
    verbose=True,
)
```

In [ ]:   Cell ID: c6976784-c70c-4ec8-882a-12b1250f4354   In [8]:   Cell ID: c6976784-c70c-4ec8-882a-12b1250f4354

```python
(…13 unchanged lines…)
        },
    ]
    return leads

    @listen(fetch_leads)
    def score_leads(self, leads):
        scores = lead_scoring_crew.kickoff_for_each(
        self.state["score_crews_results"] = scores
        return scores
(…23 unchanged lines…)
```

```python
(…13 unchanged lines…)
        },
    ]
    return leads   # Array of Leads

    @listen(fetch_leads)
    def score_leads(self, leads):
        scores = lead_scoring_crew.kickoff_for_each(
            leads
        )   # kickoff_for_each is used to run the cre
        self.state["score_crews_results"] = scores
        return scores
(…23 unchanged lines…)
```

Outputs changed

```
Starting Flow Execution
Name: SalesPipeline
ID: b11d02c2-e14b-4db0-aa77-a6cfee9bc66d
Tool Args:
```

```
Starting Flow Execution
Name: SalesPipeline
ID: 493fbfef-291d-4bcf-940d-daa097380891
Tool Args:
```

In [12]:   Cell ID: 3c90a3f2-3bc1-446b-beff-4a02d84e72dd   In [9]:   Cell ID: 3c90a3f2-3bc1-446b-beff-4a02d84e72dd

```python
flow.plot()


def save_flow_plot_screenshot(html_file: str, screenshot_file: str):
    """
    Takes a screenshot of a rendered HTML file using a headless Chrome browser.

    Args:
        html_file (str): Path to the HTML file to render and capture.
        screenshot_file (str): Path where the screenshot image will be saved.

    This function uses Selenium with a headless Chrome browser to open the specified
    HTML file, waits for the page to fully render, and saves a screenshot to the given file.
    """
    from selenium import webdriver
    from selenium.webdriver.chrome.options import Options
    import time
    import os

    # Set up headless Chrome
    options = Options()
```

```python
22    options.headless = True
23    options.add_argument("--window-size=1200,1200")
24    driver = webdriver.Chrome(options=options)
25
26    # Load the HTML file
27    driver.get("file://" + os.path.abspath(html_file))
28    time.sleep(2)  # Wait for the page to fully render
29
30    # Save screenshot
31    driver.save_screenshot(screenshot_file)
32    driver.quit()
33
34
35 save_flow_plot_screenshot(
36     html_file="crewai_flow.html", screenshot_file="crewai_flow.png"
```

Outputs unchanged

In [ ]:   Cell ID: fc1f65f5   In [10]:   Cell ID: fc1f65f5

```python
 1 def display_html_file(file_path, width="100%", height=800, border="1px solid #ccc"):
 2     """
 3     Display an HTML file in Jupyter notebook using iframe.
 4
 5     Parameters:
 6     -----------
 7     file_path : str
 8         Path to the HTML file (relative or absolute)
 9     width : str, optional
10         Width of the container (default: "100%")
11     height : int or str, optional
12         Height of the container in pixels (default: 800)
13     border : str, optional
14         CSS border style (default: "1px solid #ccc")
15
16     Returns:
17     --------
18     None (displays the HTML directly)
19     """
20
21     # Check if file exists
22     if not os.path.exists(file_path):
23         print(f"Error: File '{file_path}' not found.")
24         return
25
26     try:
27         # Read the HTML file
28         with open(file_path, "r", encoding="utf-8") as f:
29             html_content = f.read()
30
31         # Handle height parameter (convert to string if it's a number)
32         height_str = f"{height}px" if isinstance(height, int) else height
33
34         # Create the iframe wrapper
35         modified_html = f"""
36         <div style="width: {width}; height: {height_str}; border: {border};">
37             <iframe srcdoc='{html_content.replace("'", "&apos;")}'
38                     width="100%"
39                     height="100%"
40                     frameborder="0">
41             </iframe>
42         </div>
43         """
44
45         display(HTML(modified_html))
46
47     except Exception as e:
48         print(f"Error reading or displaying file: {e}")
49
50
51 # Usage examples:
52 display_html_file("./crewai_flow.html")
53 # display_html_file("./Crewai_flow.html", height=600)
54 # display_html_file("./crewai_flow.html", width="80%", height="500px")
```

Outputs unchanged

1 unchanged cell(s) hidden

In [21]:   Cell ID: 4f00316a-7d09-4533-af24-0842366e122f   In [16]:   Cell ID: 4f00316a-7d09-4533-af24-0842366e122f

```python
 1 start_time = time.time()
```

```
2 emails = await flow.kickoff_async()
3 end_time = time.time()
4
```

Outputs changed

Output deleted

```
Flow started with ID: b11d02c2-e14b-4db0-a
```

Output added

```
Flow started with ID: 493fbfef-291d-4bcf-9
```

Output deleted

```
Crew Execution Started
Name: crew
ID: 5c490a11-507b-44ce-8eb0-7744a1911b7a
Tool Args:
```

Output added

```
Crew Execution Started
Name: crew
ID: 6c95b5da-4b7f-46df-aaf6-22876afc97c8
Tool Args:
```

```
─────────────────────── 🤖 Agent Started ───────────────────────

Agent: Lead Data Specialist

Task: Collect and analyze the following information about the lead:
- Personal Information:
  - Name: Obtain the full name of the lead.
  - Job Title: Determine the lead's current job title.
  - Role Relevance: Assess how relevant the lead's role is to the decision-m
to 10.
  - Professional Background: Optionally, gather a brief description of the l

- Company Information:
  - Company Name: Identify the name of the company the lead works for.
  - Industry: Determine the industry in which the company operates.
  - Company Size: Estimate the size of the company in terms of employee coun
  - Revenue: If available, collect information on the annual revenue of the
  - Market Presence: Evaluate the company's market presence on a scale from

- Our Company and Product:
  - Company Name: CrewAI
  - Product: Multi-Agent Orchestration Platform
  - ICP: Enterprise companies looking into Agentic automation.
  - Pitch: We are a platform that allows you to orchestrate AI Agents for au

-Lead Data:
  {'name': 'João Moura', 'job_title': 'Director of Engineering', 'company':
'joao@clearbit.com', 'use_case': 'Using AI Agent to do better data enrichmen
```

Output deleted

```
Agent: Lead Data Specialist

Thought: I need to gather information ab
information about his company, Clearbit.
revenue, and market presence.

Using Tool: Search the internet with Se
```

Output added

```
Agent: Lead Data Specialist

Thought: I will start by gathering compa

Using Tool: Search the internet with Se
```

Output deleted

```
"{\"search_query\": \"Clearbit company i
```

Output added

```
"{\"search_query\": \"Clearbit company i
```

Output deleted

```
{'searchParameters': {'q': 'Clearbit com
'search', 'num': 10, 'engine': 'google'}
customers in 2023.', 'link': 'https://ge
revenue reached $31.5M up from $41.4M in
```

Output added

```
{'searchParameters': {'q': 'Clearbit com
10, 'engine': 'google'}, 'organic': [{'t
'https://clearbit.com/attributes', 'snip
enable marketing personalization with ov
```

Since its launch in 2015, Clearbit has s
and increasing adoption across various i
attributes - Clearbit', 'link': 'https:/
manage leads efficiently, and enable mar
'position': 2}, {'title': 'Fit: firmogra
'https://clearbit.com/resources/books/b2
company information, like size, type, in
for your product or service.', 'position
Enlyft', 'link': 'https://enlyft.com/tec
Clearbit is most often used by companies
3 years and 8 ...', 'position': 4}, {'ti
'link': 'https://growjo.com/company/Clea
estimated annual revenue is currently $1
March 2019.", 'position': 5}, {'title':
'link': 'https://www.zoominfo.com/c/clea
6}, {...

Overview, News & Similar companies | Zoo
'snippet': 'Headquarters. 90 California
(866) 241-4820 ; Website. www.clearbit.c
firmographic and employment data - Clear
'https://clearbit.com/resources/books/b2
company information, like size, type, in
for your product or service.', 'position
Growjo', 'link': 'https://growjo.com/com
Clearbit's estimated annual revenue is c
funding in March 2019.", 'position': 4},
Tracxn', 'link': 'https://tracxn.com/d/c
'snippet': 'It operates as a Business In
raised $2M in funding. The company has 2
and its marketshare - Enlyft', 'link': '
most often used by companies with 10-50
goes back as far as...

Agent: **Lead Data Specialist**

Thought: Thought: I have gathered inform
need to extract relevant details regardi

Using Tool: **Read website content**

Agent: **Lead Data Specialist**

Thought: Next, I will extract the releva
Thought: I need to summarize the company

Using Tool: **Read website content**

"{\"website_url\": \"https://getlatka.co

"{\"website_url\": \"https://www.zoominf

Output deleted

Output added

How Clearbit hit $31.5M revenue and 907
Scroll up to return
Create Free Account
Sign up to access all features
Create Account
Sign up
Sign up
Already have an account? Log in
Research with LatkaAI New
Prompt with confidence that source data
Largest SaaS database
Search 57.7K+ companies by revenue, func
Export company data to Excel
28 SaaS metrics including ARPU, CAC, LTV
Hard-to-get data
We interview founders to get valuations,
SaaS Database
Magazine
Community
Podcast
Blog
Pricing
Latka AI
Login
Get Started
SaaS Database
Magazine
Community
Podcast
Blog
Pricing
Login
Get Started
Clearbit
90 Sheridan St, San Francisco, Californi
Download Excel Model
About Company
Revenue Funding Team Customers Contacts
How Clearbit hit $31.5M revenue and 907
Clearbit is a data intelligence company
intelligence and marketing data solution
leader in the data intelligence industry
generate leads, and personalize marketin
Clearbit Enrichment, Clearbit Reveal, Cl
businesses of all sizes and industries a

Clearbit - Overview, News & Similar comp
Products Sales Contact & Company Search
Cross-Channel Advertising Buyer Intent I
Data Management Data Enrichment API & We
integrations Top Companies Our Data Indu
Contact Sales Sign Up Clearbit Business
Info for Free Overview Headquarters 90 (
241-4820 Website www.clearbit.com Revenu
IT Services Customer Relationship Manage
interest in procuring solutions related
(M&A) Clearbit has entered into an agree
Funding Amount $15M Most Recent Funding
Similar Companies Company Insights News
to help companies find more information
headquartered in San Francisco, Californ
this data correct? View contact profiles
Clearbit's Co APIHub Inc SIC Code 73,737
Phone Email Harlow Ward Chief Technology
uncover key details. Access More Details
Engin...

powerful features, and flexible deployme
2015
Founded
$31.5M
2023 Revenue
−23.94%
YOY
$38.5M
Funding
Clearbit Revenue
In 2023, Clearbit's revenue reached $31.
2022, $3.4M in 2021. Since its launch in
 consistent revenue growth, reflecting i

Agent: **Lead Data Specialist**

Final Answer:
```
Personal Information:
- Name: João Moura
- Job Title: Director of Engineering
- Role Relevance: 8/10 (The Director of
related to technology and automation, wh
- Professional Background: João Moura ha
focusing on data enrichment and automati

Company Information:
- Company Name: Clearbit
- Industry: Data Intelligence
- Company Size: Approximately 120 employ
- Revenue: $31.5 million (as of 2023)
- Market Presence: 8/10 (Clearbit is red
has a significant user base across vario

Our Company and Product:
- Company Name: CrewAI
- Product: Multi-Agent Orchestration Pla
- ICP: Enterprise companies looking into
- Pitch: We are a platform that allows y
```

Agent: **Lead Data Specialist**

Final Answer:
```
Personal Information:
- Name: João Moura
- Job Title: Director of Engineering
- Role Relevance: 9 (as a Director of En
especially regarding technology and auto
- Professional Background: João Moura ha
leading the development of AI integratio

Company Information:
- Company Name: Clearbit
- Industry: Business Services, Software
- Company Size: Approximately 104 employ
- Revenue: $20 Million (reported annuall
- Market Presence: 7 (Clearbit has estab
currently being acquired by HubSpot, inc
```

Task Completed
Name: e4fe3a93-4a56-4365-8754-f79b5c15c6
Agent: Lead Data Specialist

Tool Args:

Task Completed
Name: 931b6ab3-300c-47f7-b891-cff8f4c166
Agent: Lead Data Specialist

Tool Args:

──────────────── 👑 Agent Started ────────────────

Agent: **Cultural Fit Analyst**

Task: Assess the cultural alignment between the lead's company and our organ
following:
   - Cultural Values: Analyze the company's publicly stated values and intern
sustainability, employee engagement).
   - Strategic Alignment: Evaluate how well the company's goals and mission a
strategic objectives.
   - Qualitative Scoring: Assign a qualitative score (0-10) representing the
   - Comments: Provide additional comments or observations that support the c

- Our Company and Product:
   - Company Name: CrewAI
   - Product: Multi-Agent Orchestration Platform
   - ICP: Enterprise companies looking into Agentic automation.
   - Pitch: We are a platform that allows you to orchestrate AI Agents for au

```
- Lead Data:
  {'name': 'João Moura', 'job_title': 'Director of Engineering', 'company':
  'joao@clearbit.com', 'use_case': 'Using AI Agent to do better data enrichmen
```

Agent: **Cultural Fit Analyst**

Thought: I need to gather information ab
the cultural alignment with CrewAI.

Using Tool: **Search the internet with Se**

Agent: **Cultural Fit Analyst**

Thought: I need to gather more informati
alignment with CrewAI's organizational c

Using Tool: **Search the internet with Se**

"{\"search_query\": \"Clearbit company c

"{\"search_query\": \"Clearbit company c

{'searchParameters': {'q': 'Clearbit co
'engine': 'google'}, 'organic': [{'title
'https://wellfound.com/company/clearbit'
businesses . We believe in autonomy, aut
than 1,500 enterprise customers and 300,
1}, {'title': "Defining Clearbit's compa
'snippet': 'Missing: mission statement',
Clearbit's Trust Center", 'link': 'https
values mission statement', 'position': 3
'https://www.comparably.com/companies/cl
intelligence APIs for modern day firms.
'position': 4}, {'title': 'Welcoming Cle
'https://www.hubspot.com/company-news/we
Matt and Harlow, have a bold mission to
In all our ...", 'position': 5}, {'title
'https://canvasbusinessmodel.com/blogs/m
sQILw8DXY9pQVMCA', 'snippet': 'Our core
foundation of everything we do, guiding
Elements of Company Culture to Include i
'https://blog.clearcompany.com/elements-

{'searchParameters': {'q': 'Clearbit com
'google'}, 'organic': [{'title': 'Clearb
'https://wellfound.com/company/clearbit'
businesses . We believe in autonomy, aut
than 1,500 enterprise customers and 300,
1}, {'title': "Defining Clearbit's compa
'snippet': "Values provide a constitutio
Clearbit came up with our company values
'link': 'https://www.glassdoor.com/Overv
overview Get tailored insights about wor
businesses grow faster and smarter.', 'p
Wellfound', 'link': 'https://wellfound.c
values mission', 'position': 4}, {'title
'https://www.comparably.com/companies/cl
intelligence APIs for modern day firms.
'position': 5}, {'title': 'Clearbit ente
'https://clearbit.com/blog/clearbit-ente
mission to collect rich data about milli
Clearbit's data ...", 'position': 6}, {
'link': 'https://clearbit.com/blog/clear

Agent: **Cultural Fit Analyst**

Thought: I found valuable information re
now retrieve the content from the releva

Using Tool: **Read website content**

Agent: **Cultural Fit Analyst**

Thought: Thought: I found relevant links
that defines Clearbit's company values t

Using Tool: **Read website content**

──────────────── Tool Input ────────────────

"{\"website_url\": \"https://clearbit.com/blog/company-values\"}"

──────────────── Tool Output ────────────────

Defining Clearbit's company values Clearbit customer login Blog > Defining C
Clearbit's company values Matt Sornson | August 12, 2019 | 4 minute read In
inflection point.
Since our founding in 2014, we'd been running as a small, hyper-efficient, a
about everyone in the company would weigh in on new hires, and every new emp
the entire leadership team to understand what our values were. This organic
as we started to scale.
At thirty-odd employees, Clearbit did already have a real set of values, eve

them. In line with how we were building the company — deliberately and with
we all wanted to be a part of — it was time to get official. The challenge:
internal operating principles.
We've effectively tripled our team, while maintaining an incredibly high bar
all cherish. Choosing and then using our values has been instrumental in tha
Surfacing values, from the bottom up
We believe that values should be a reflection of the entire team, not just t
set out to formalize Clearbit's, we started by asking the team.
We sent out a survey to every employee, asking them to submit up to three va
described our culture. Of equal importance, we asked that they nominate the
best exemplified that value.
We were expecting to see a wide array of suggestions and had anticipated tha
some serious workshopping to produce a final set. Incredibly, from the over
could be grouped into 7 themes.
being customer centric / empathy for customers
learning
excellence / hard work
self-sufficiency
fun
honest communication
team
We took this list and reworked them...

Agent: **Cultural Fit Analyst**

Final Answer:
Cultural Alignment Assessment Report:
- Cultural Fit Score: 8/10
- Cultural Values: Clearbit's core value
CrewAI's focus on innovation and employe
approach, collaboration, and continuous
- Strategic Alignment: Clearbit's missic
CrewAI's offering of orchestrating AI ag
enterprise clients.
- Comments: The cultural overlaps, inclu
environment, signify an excellent founda
relationship.

Agent: **Cultural Fit Analyst**

Final Answer:
Cultural Fit Score: 8/10

Supporting Analysis:
- Cultural Values: Clearbit emphasizes e
initiative, and fun. These align well wi
- Strategic Alignment: Clearbit's missic
CrewAI's goal of automating enterprise t
- Qualitative Score: Based on the cultur
between the two organizations.

Additional Comments: The focus on teamwc
The partnership poses an opportunity for
successful.

Task Completed
Name: 75bb632f-655b-48eb-bdcd-f2d91be253
Agent: Cultural Fit Analyst

Tool Args:

Task Completed
Name: 230adf43-8753-4c45-a1b5-2e8b09c34b
Agent: Cultural Fit Analyst

Tool Args:

───────────────── 👑 Agent Started ─────────────────

Agent: **Lead Scorer and Validator**

Task: Aggregate the collected data and perform the following steps: - Score
criteria, calculate a final lead score (0-100). Consider factors such as:
  - Role Relevance
  - Company Size
  - Market Presence
  - Cultural Fit
- Scoring Criteria Documentation: List the criteria used to determine the sc
collected data and the calculated score for consistency and accuracy. Make a
Report: Compile a summary report that includes the final validated lead scor
validation notes.
- Our Company and Product:
  - Company Name: CrewAI
  - Product: Multi-Agent Orchestration Platform
  - ICP: Enterprise companies looking into Agentic automation.
  - Pitch: We are a platform that allows you to orchestrate AI Agents for au

— Lead Data:
    {'name': 'João Moura', 'job_title': 'Director of Engineering', 'company':
    'joao@clearbit.com', 'use_case': 'Using AI Agent to do better data enrichmen

Agent: **Lead Scorer and Validator**

Thought: I need to gather information ab
evaluated to arrive at a valid lead sco

Using Tool: **Search the internet with Se**

Agent: **Lead Scorer and Validator**

Thought: I need to validate the informat
acquisition by HubSpot. This will ensure

Using Tool: **Search the internet with Se**

"{\"search_query\": \"lead scoring crite

"{\"search_query\": \"Clearbit HubSpot a

Output deleted

{'searchParameters': {'q': 'lead scoring
'engine': 'google'}, 'organic': [{'title
'https://www.mojenta.com/blog/b2b-tech-p
Effective Lead Scoring System', 'positic
Prioritize High-Quality ...', 'link': 'h
'snippet': 'Lead scoring is the process
they are to become a customer.', 'positi
Practices - Cognism', 'link': 'https://w
differs from company to company, there a
that most teams ...', 'position': 3}, {'
'https://clearbit.com/resources/books/le
points for firmographic attributes such
tags tell them whether the lead is ...",
Scoring - GNW Consulting', 'link':
'https://gnwconsulting.com/resource-cent
'Define your objectives. Clearly identif
leads for sales, identifying high-value
models and their impact on sales ...', '
'snippet': 'In traditional lead scoring,
company size, and revenue) and implicit

Output added

{'searchParameters': {'q': 'Clearbit Hub
'google'}, 'organic': [{'title': 'HubSpc
'https://ir.hubspot.com/news-releases/ne
der-clearbit', 'snippet': 'HubSpot, Inc.
announces today that it has successfully
"HubSpot's Acquisition of Clearbit: A On
'https://www.cmswire.com/digital-marketi
'snippet': "HubSpot's acquisition of Cle
capabilities and position itself as a ..
Leader, Clearbit - Business Wire', 'link
'https://www.businesswire.com/news/home/
', 'snippet': 'It has entered into a def
help HubSpot customers grow with industr
agreement to join forces with HubSpot',
'https://clearbit.com/blog/clearbit-ente
minute read. I am thrilled to announce t
HubSpot.', 'position': 4}, {'title': 'We
'https://www.hubspot.com/company-news/we
agreement to acquire Clearbit. Clearbit
rich and useful data about ...', 'positi
enhance its AI platform', 'link': 'htt..

Output deleted

Agent: **Lead Scorer and Validator**

Final Answer:
{
  "personal_info": {
    "name": "João Moura",
    "job_title": "Director of Engineeri
    "role_relevance": 8,
    "professional_background": "João Mou
focusing on data enrichment and automati
  },
  "company_info": {
    "company_name": "Clearbit",
    "industry": "Data Intelligence",
    "company_size": 120,
    "revenue": 31.5,
    "market_presence": 8
  },
  "lead_score": {
    "score": 78,
    "scoring_criteria": [
      "Role Relevance",
      "Company Size",
      "Market Presence",

Output added

Agent: **Lead Scorer and Validator**

Final Answer:
Thought: I have found valid information
the scoring process as it indicates a st
compile the final report based on the pr

Lead Scoring Calculation:
- Role Relevance: 9 (Director of Enginee
automation)
- Company Size: 104 employees (small to
- Market Presence: 7 (Established presen
- Cultural Fit: 8 (Strong alignment with

Calculating Final Score:
- Role Relevance: 25% of total score
- Company Size: 20% of total score
- Market Presence: 25% of total score
- Cultural Fit: 30% of total score

Final Score = (Role Relevance * 0.25) +
0.30)
= (9 * 0.25) + (7 * 0.20) + (7 * 0.25) +
= 2.25 + 1.4 + 1.75 + 2.4 = 8.8 (Normali

        "Cultural Fit"
      ],
      "validation_notes": "Lead score accu
standing, and CrewAI's target market."
      }
    }

Validation notes indicate high alignment

Final Report:
{
  "personal_info": {
    "name": "João Moura",
    "job_title": "Director of Engineerir
    "role_relevance": 9,
    "professional_background": "João Mou
for leading the development of AI integr
  },
  "company_info": {
    "company_name": "Clearbit",
    "industry": "Business Services, Soft
    "company_size": 104,
    "revenue": 20.0,
    "market_presence": 7
  },
  "lead_score": {
    "score": 88,
    "scoring_criteria": [
      "Role Relevance: 9 (Director of Er
      "Company Size: 104 employees",
      "Market Presence: 7 (clear presenc
      "Cultural Fit: 8 (strong alignment
    ],
    "validation_notes": "The alignment c
of the lead score."
    }
  }
}

Task Completed
Name: db726616-5195-4fe0-993a-d6d252c69a
Agent: Lead Scorer and Validator

Tool Args:

Task Completed
Name: 2e541465-3903-4155-a469-bfd085be59
Agent: Lead Scorer and Validator

Tool Args:

Output deleted

Output added

Crew Execution Completed
Name: crew
ID: 5c490a11-507b-44ce-8eb0-7744a1911b7a
Tool Args:
Final Output: {
  "personal_info": {
    "name": "João Moura",
    "job_title": "Director of Engineerir
    "role_relevance": 8,
    "professional_background": "João Mou
focusing on data enrichment and automati
  },
  "company_info": {
    "company_name": "Clearbit",
    "industry": "Data Intelligence",
    "company_size": 120,
    "revenue": 31.5,
    "market_presence": 8
  },
  "lead_score": {
    "score": 78,
    "scoring_criteria": [
      "Role Relevance",
      "Company Size",
      "Market Presence",
      "Cultural Fit"
    ],
    "validation_notes": "Lead score accu
standing, and CrewAI's target market."
    }
  }

Crew Execution Completed
Name: crew
ID: 6c95b5da-4b7f-46df-aaf6-22876afc97c8
Tool Args:
Final Output: Thought: I have found vali
which enhances the scoring process as it
now proceed to compile the final report
score calculation.

Lead Scoring Calculation:
- Role Relevance: 9 (Director of Enginee
automation)
- Company Size: 104 employees (small to
- Market Presence: 7 (Established presen
- Cultural Fit: 8 (Strong alignment with

Calculating Final Score:
- Role Relevance: 25% of total score
- Company Size: 20% of total score
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Final Score = (Role Relevance * 0.25) +
0.30)
= (9 * 0.25) + (7 * 0.20) + (7 * 0.25) +
= 2.25 + 1.4 + 1.75 + 2.4 = 8.8 (Normali

Validation notes indicate high alignment

Final Report:
{
  "personal_info": {
    "name": "João Moura",
    "job_title": "Director of Engineerir
    "role_relevance": 9,
    "professional_background": "João Mou
for leading the development of AI integr

        },
        "company_info": {
          "company_name": "Clearbit",
          "industry": "Business Services, Sof
          "company_size": 104,
          "revenue": 20.0,
          "market_presence": 7
        },
        "lead_score": {
          "score": 88,
          "scoring_criteria": [
            "Role Relevance: 9 (Director of En
            "Company Size: 104 employees",
            "Market Presence: 7 (clear presen
            "Cultural Fit: 8 (strong alignment
          ],
          "validation_notes": "The alignment
of the lead score."
        }
      }

Crew Execution Started
Name: crew
ID: 2f4719f1-a3fb-4622-9d34-1245c62272f2
Tool Args:

Crew Execution Started
Name: crew
ID: e74d84cc-b4dd-4037-a896-da8f2993ea14
Tool Args:

Agent: **Email Content Writer**

Task: Craft a highly personalized email
relevant personal or company achievement
needs of their company. This is not as
and to the point. Don't use any salutati
Our Company and Product: – Company Name:
Enterprise companies looking into Agenti
orchestrate AI Agents for automations to
Use the following information: Personal
'role_relevance': 8, 'professional_backg
technology management, focusing on data
'Clearbit', 'industry': 'Data Intellige
Score: {'score': 78, 'scoring_criteria':
Fit'], 'validation_notes': "Lead score a
Clearbit's standing, and CrewAI's target

Agent: **Email Content Writer**

Task: Craft a highly personalized email
relevant personal or company achievement
needs of their company. This is not as
and to the point. Don't use any salutati
Our Company and Product: – Company Name:
Enterprise companies looking into Agenti
orchestrate AI Agents for automations to
Use the following information: Personal
'role_relevance': 9, 'professional_backg
Clearbit, responsible for leading the de
Company Info: {'company_name': 'Clearbit
Software & IT Services)', 'company_size
88, 'scoring_criteria': ['Role Relevance
'Market Presence: 7 (clear presence in
alignment with CrewAI's values)"], 'val
CrewAI bolsters the robustness of the le

Output deleted

Output added

Agent: **Email Content Writer**

Final Answer:
João,

As the Director of Engineering at Clear
perfectly with what CrewAI offers. Our M
automation across various projects, enha

With Clearbit's strong market presence a
scale operations using orchestrated AI A
support your automation goals and drive

Agent: **Email Content Writer**

Final Answer:
João, I noticed your impressive work as
shaping the product roadmap. CrewAI's Mu
initiatives, enabling seamless automatio
and focus on innovative solutions post-a
operational efficiency and drive AI adva
Clearbit.

Task Completed
Name: 3dbf2447-7fa3-4df1-8aaa-81f244862e
Agent: Email Content Writer

Tool Args:

Task Completed
Name: 405e9102-df33-40d5-88e0-239fa1b602
Agent: Email Content Writer

Tool Args:

──────── 👑 Agent Started ────────

Agent: **Engagement Optimization Specialist**

Task: Review the personalized email draft and optimize it with strong CTAs a
they reached out and filled a lead form. Keep it short and to the point. Don
remarks, nor too complex sentences. Ensure the email encourages the lead to
another desired action immediately.
Our Company and Product: – Company Name: CrewAI – Product: Multi-Agent Orche
Enterprise companies looking into Agentic automation. – Pitch: We are a plat
orchestrate AI Agents for automations to any vertical.

Output deleted

Agent: **Engagement Optimization Speciali**

Final Answer:
Maximize efficiency and drive results wi
solution can transform your automation p

Ready to elevate your automation strateg
your needs. Click here [insert schedulir

Want to see our platform in action? Resp
the next 24 hours.

Don't miss out on the opportunity to str

Output added

Agent: **Engagement Optimization Speciali**

Final Answer:
Unlock the potential of your enterprise
orchestrating AI Agents that drive autor
never before.
Ready to elevate your operations? Click
Don't miss out on transforming your aut
and we'll get back to you right away! Er

Task Completed
Name: bec7bb31-59b8-4731-9168-1f03a76686
Agent: Engagement Optimization Specialis

Tool Args:

Task Completed
Name: 2d3611ad-97a5-4c7f-b028-2cae5d8157
Agent: Engagement Optimization Specialis

Tool Args:

Crew Execution Completed
Name: crew
ID: 2f4719f1-a3fb-4622-9d34-1245c62272f2
Tool Args:
Final Output: Maximize efficiency and dr
Discover how our solution can transform

Ready to elevate your automation strateg
your needs. Click here [insert schedulir
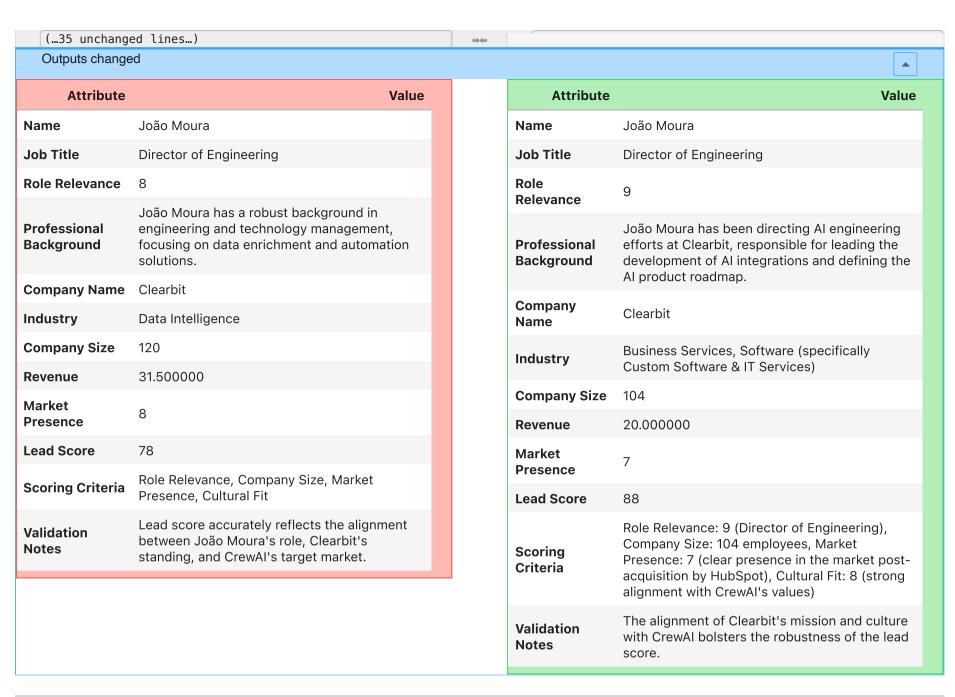
Crew Execution Completed
Name: crew
ID: e74d84cc-b4dd-4037-a896-da8f2993ea14
Tool Args:
Final Output: Unlock the potential of yo
Imagine orchestrating AI Agents that dri
processes like never before.
Ready to elevate your operations? Click
Don't miss out on transforming your aut

Want to see our platform in action? Res
the next 24 hours.

Don't miss out on the opportunity to str

and we'll get back to you right away! E

Flow Execution Completed
Name: SalesPipeline
ID: b11d02c2-e14b-4db0-aa77-a6cfee9bc66d
Tool Args:

Flow Execution Completed
Name: SalesPipeline
ID: 493fbfef-291d-4bcf-940d-daa097380891
Tool Args:

Flow execution time: 47.55 seconds

Flow execution time: 42.07 seconds

---

2 unchanged cell(s) hidden

In [23]:   Cell ID: 5cd2ad40-12a3-401f-ad32-6bd54a099734

```
1  import pandas as pd
2
3  # Convert UsageMetrics instance to a DataFrame
4  df_usage_metrics = pd.DataFrame(
   (…9 unchanged lines…)
```

In [12]:   Cell ID: 5cd2ad40-12a3-401f-ad32-6bd54a099734

```
1  # Convert UsageMetrics instance to a DataFrame
2  df_usage_metrics = pd.DataFrame(
   (…9 unchanged lines…)
```

Outputs changed

Total costs: $0.0025

	total_tokens	prompt_tokens	cached_prompt_tokens	comp
0	16461	14726	4352	

	total_tokens	prompt_tokens	cached_prompt_tokens	comp
0	16495	14959	5120	

In [24]:   Cell ID: fae27085-f186-40d2-84d8-3aad6ee8a322

```
1  import pandas as pd



2
3  # Convert UsageMetrics instance to a DataFrame
   (…8 unchanged lines…)
```

In [19]:   Cell ID: fae27085-f186-40d2-84d8-3aad6ee8a322

```
1  # Wait for the asynchronous flow to complete and ens
2  import asyncio
3
4  if asyncio.iscoroutine(emails):
5      emails = await emails  # Await if not already aw
6
7  # Optionally, check if emails is a list and has resu
8  if not emails or not hasattr(emails[0], "token_usage
9      raise ValueError(
10         "No results available in 'emails' or missing
11     )
12
13 # Convert UsageMetrics instance to a DataFrame
   (…8 unchanged lines…)
```

Outputs changed

Total costs: $0.0002

	total_tokens	prompt_tokens	cached_prompt_tokens	comp
0	1088	849	0	

	total_tokens	prompt_tokens	cached_prompt_tokens	comp
0	1121	900	0	

---

1 unchanged cell(s) hidden

In [27]:   Cell ID: d10efceb-e3fd-4324-9337-879be159f093

```
1  scores = flow.state["score_crews_results"]
```

In [20]:   Cell ID: d10efceb-e3fd-4324-9337-879be159f093

```
1  scores = flow.state["score_crews_results"]
```

In [28]:   Cell ID: 7860c745-0c7e-4edd-bf8b-75beb14f64bd

```
1  import pandas as pd
2  from IPython.display import display, HTML
3
4  lead_scoring_result = scores[0].pydantic
5
```

In [21]:   Cell ID: 7860c745-0c7e-4edd-bf8b-75beb14f64bd

```
1  lead_scoring_result = scores[0].pydantic
2
```

```
(…35 unchanged lines…)
```

Outputs changed

Attribute	Value
Name	João Moura
Job Title	Director of Engineering
Role Relevance	8
Professional Background	João Moura has a robust background in engineering and technology management, focusing on data enrichment and automation solutions.
Company Name	Clearbit
Industry	Data Intelligence
Company Size	120
Revenue	31.500000
Market Presence	8
Lead Score	78
Scoring Criteria	Role Relevance, Company Size, Market Presence, Cultural Fit
Validation Notes	Lead score accurately reflects the alignment between João Moura's role, Clearbit's standing, and CrewAI's target market.

Attribute	Value
Name	João Moura
Job Title	Director of Engineering
Role Relevance	9
Professional Background	João Moura has been directing AI engineering efforts at Clearbit, responsible for leading the development of AI integrations and defining the AI product roadmap.
Company Name	Clearbit
Industry	Business Services, Software (specifically Custom Software & IT Services)
Company Size	104
Revenue	20.000000
Market Presence	7
Lead Score	88
Scoring Criteria	Role Relevance: 9 (Director of Engineering), Company Size: 104 employees, Market Presence: 7 (clear presence in the market post-acquisition by HubSpot), Cultural Fit: 8 (strong alignment with CrewAI's values)
Validation Notes	The alignment of Clearbit's mission and culture with CrewAI bolsters the robustness of the lead score.

1 unchanged cell(s) hidden

In [29]:   Cell ID: 8c221ae1-6310-472b-aaeb-c046a5d1a08c

```python
import textwrap

result_text = emails[0].raw
wrapped_text = textwrap.fill(result_text, width=80)
print(wrapped_text)
```

In [22]:   Cell ID: 8c221ae1-6310-472b-aaeb-c046a5d1a08c

```python
result_text = emails[0].raw
wrapped_text = textwrap.fill(result_text, width=80)
print(wrapped_text)
```

Outputs changed

Output deleted

```
Maximize efficiency and drive results with CrewAI's Mul
Platform. Discover how our solution can transform your
across any vertical.   Ready to elevate your automation
meeting today to explore tailored solutions that meet y
[insert scheduling link] to choose a time that works fo
platform in action? Respond with "Demo" and we'll arran
walkthrough within the next 24 hours.   Don't miss out
streamline operations and boost productivity. Take the
```

Output added

```
Unlock the potential of your enterprise with CrewAI's M
Platform. Imagine orchestrating AI Agents that drive au
business verticals, streamlining processes like never b
your operations? Click here to schedule a quick chat wi
Meeting]. Don't miss out on transforming your automatio
immediate insights, reply to this email, and we'll get
Embrace the future of efficiency with CrewAI today!
```

1 unchanged cell(s) hidden

In [30]:   Cell ID: a39a9216-103f-4a55-81ed-95a0ad41c73c   In [26]:   Cell ID: a39a9216-103f-4a55-81ed-95a0ad41c73c

```python
from crewai import Flow
from crewai.flow.flow import listen, start, and_, or_, router


class SalesPipeline(Flow):

    @start()
    def fetch_leads(self):
        # Pull our leads from the database
        # This is a mock, in a real-world scenario, this is where you would
        # fetch leads from a database
        leads = [
            {
                "lead_data": {
                    "name": "João Moura",
                    "job_title": "Director of Engineering",
                    "company": "Clearbit",
                    "email": "joao@clearbit.com",
                    "use_case": "Using AI Agent to do better data enrichment.",
                },
            },
```

```python
22            ]
23            return leads
24
25        @listen(fetch_leads)
26        def score_leads(self, leads):
27            scores = lead_scoring_crew.kickoff_for_each(leads)
28            self.state["score_crews_results"] = scores
29            return scores
30
31        @listen(score_leads)
32        def store_leads_score(self, scores):
33            # Here we would store the scores in the database
34            return scores
35
36        @listen(score_leads)
37        def filter_leads(self, scores):
38            return [score for score in scores if score["lead_score"].score > 70]
39
40        @listen(and_(filter_leads, store_leads_score))
41        def log_leads(self, leads):
42            print(f"Leads: {leads}")
43
44        @router(
45            filter_leads,
46            # paths=["high", "medium", "low"]
47        )
48        def count_leads(self, scores):
49            if len(scores) > 10:
50                return "high"
51            elif len(scores) > 5:
52                return "medium"
53            else:
54                return "low"
55
56        @listen("high")
57        def store_in_salesforce(self, leads):
58            return leads
59
60        @listen("medium")
61        def send_to_sales_team(self, leads):
62            return leads
63
64        @listen("low")
65        def write_email(self, leads):
66            scored_leads = [lead.to_dict() for lead in leads]
67            emails = email_writing_crew.kickoff_for_each(scored_leads)
68            return emails
69
70        @listen(write_email)
71        def send_email(self, emails):
72            # Here we would send the emails to the leads
```

1 unchanged cell(s) hidden

In [32]:   Cell ID: eecf2beb-818a-4db5-8338-280beac670b9   In [27]:   Cell ID: eecf2beb-818a-4db5-8338-280beac670b9

```python
1 flow = SalesPipeline()
2 # Save the flow plot as HTML
3 flow.plot(filename="crewai_flow_complex.html")
4
5 save_flow_plot_screenshot(
6     html_file="crewai_flow_complex.html", screenshot_
7 )
```

```python
1 flow = SalesPipeline()
2 # Save the flow plot as HTML
3 flow.plot(filename="crewai_flow_complex")
4
5 save_flow_plot_screenshot(
6     html_file="crewai_flow_complex.html", screenshot_
7 )
```

Outputs changed

Starting Flow Execution
Name: SalesPipeline
ID: 8ff5a35c-7418-4b18-a375-6fadae2b57c0
Tool Args:

Starting Flow Execution
Name: SalesPipeline
ID: 0edc3b08-d1bc-412f-aacf-3f2651fa4d75
Tool Args:

Plot saved as crewai_flow_complex.html.html

Plot saved as crewai_flow_complex.html

In [36]:   Cell ID: 41d8a4df-a0cc-4aa5-a5cf-390792c7cec6   In [28]:   Cell ID: 41d8a4df-a0cc-4aa5-a5cf-390792c7cec6

```
1  display_html_file("./crewai_flow_complex.html")
```

Outputs changed ▲

Output deleted

Start
Method   Method   Router   Trigger

Output added

od   Method   Crew
Method   Router   Trig

1 unchanged cell(s) hidden