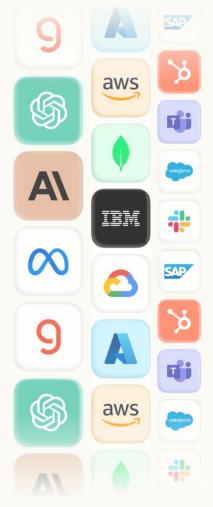


Building an Al-Driven Company with Agents



10,602,922

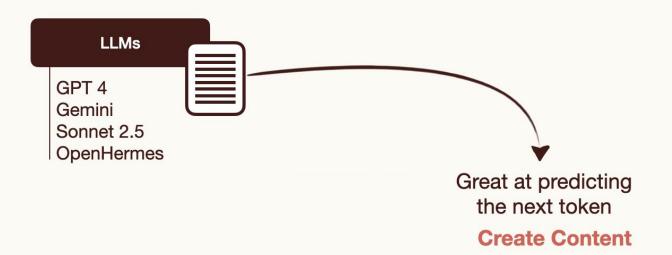


10,602,922 Al Agents

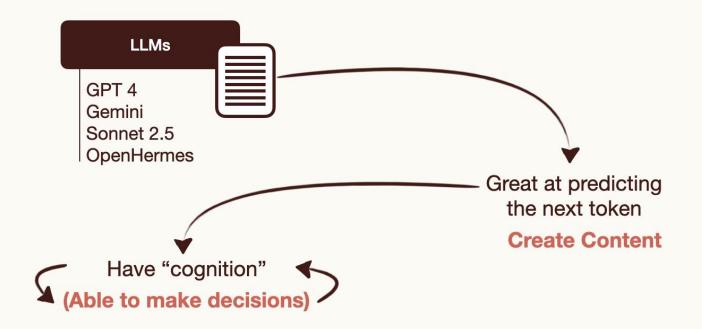




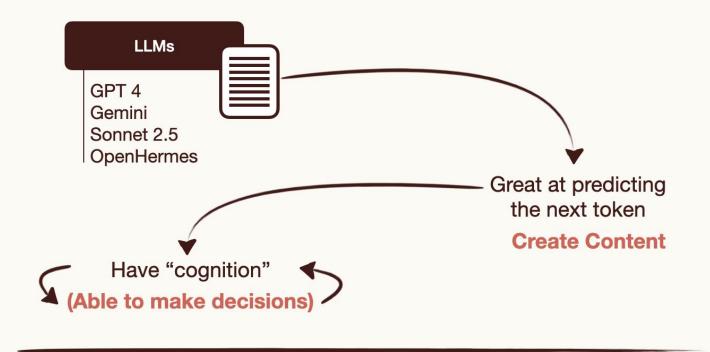












An Agent is Born

You can leave the chat room



Real Time Reaction





zendesk ceo









Todas

Notícias

Imagens

Vídeos

Shopping Maps

: Mais

Ferram

Tom Eggemeier

Tom Eggemeier



Tom is the CEO of Zendesk, and a member of the board.





Zendesk

https://www.zendesk.com > company > management-team :

Zendesk Management Team

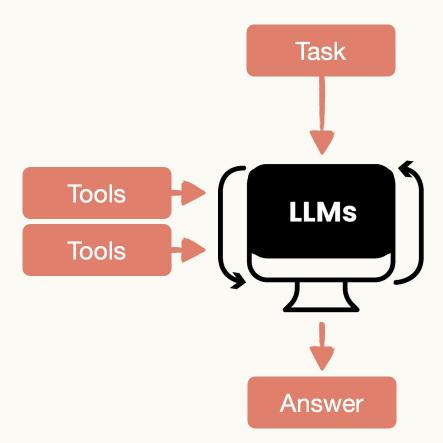


Sobre trechos em destaque • Feed

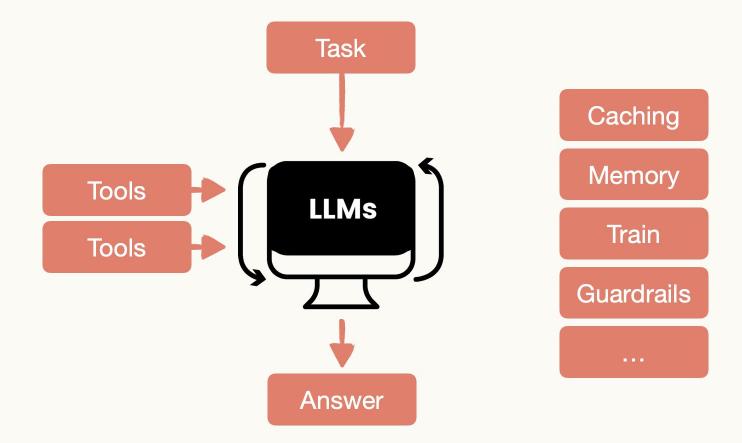


As pessoas também perguntam :

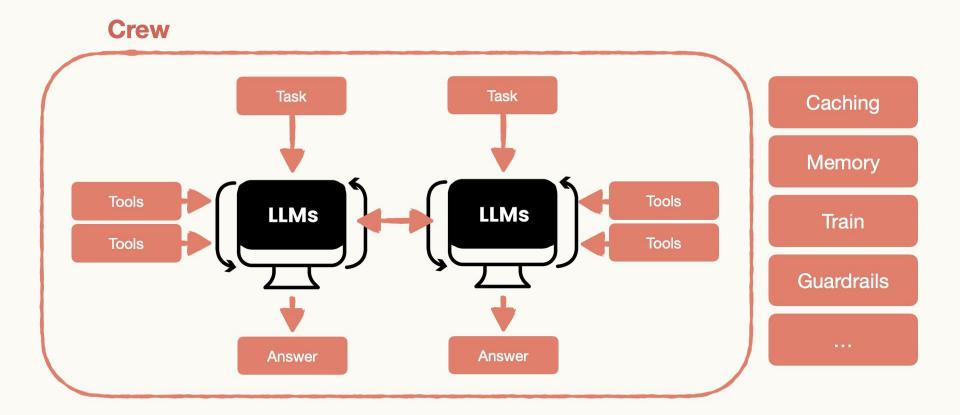














Hybrid Sequential Hierarchical Parallel Async



Python LLMs **LLMs** LLMs LLMs

Flow
Python meets
Multi Crews



NEW FEATURE COMING NEXT VERSION



The Leading Multi-Agent Platform





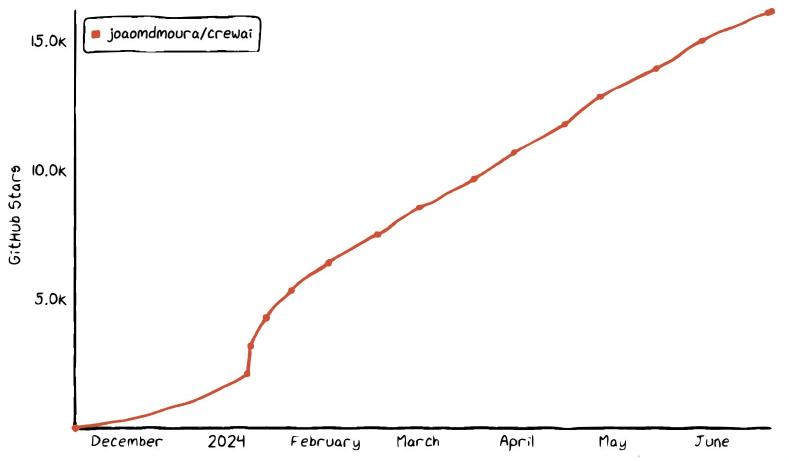




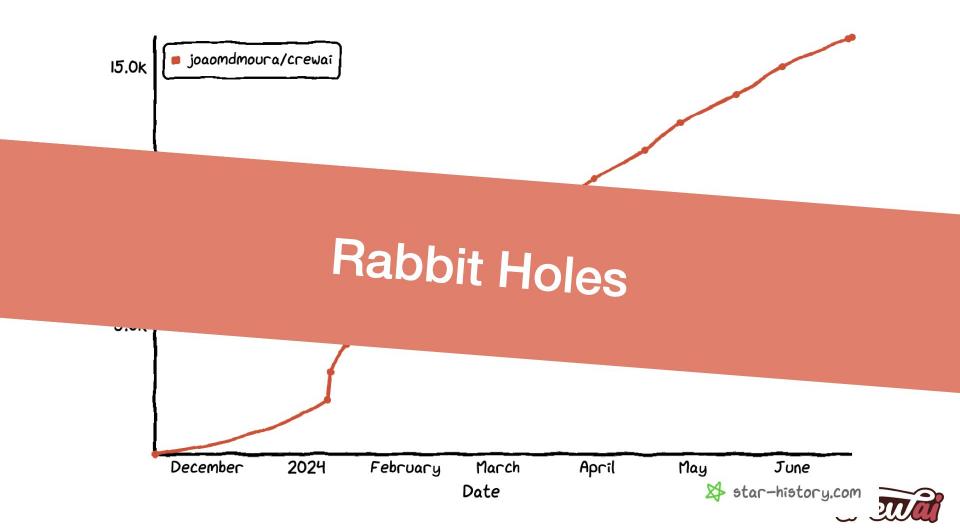








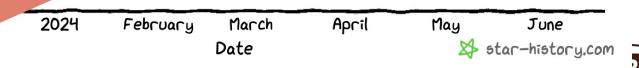


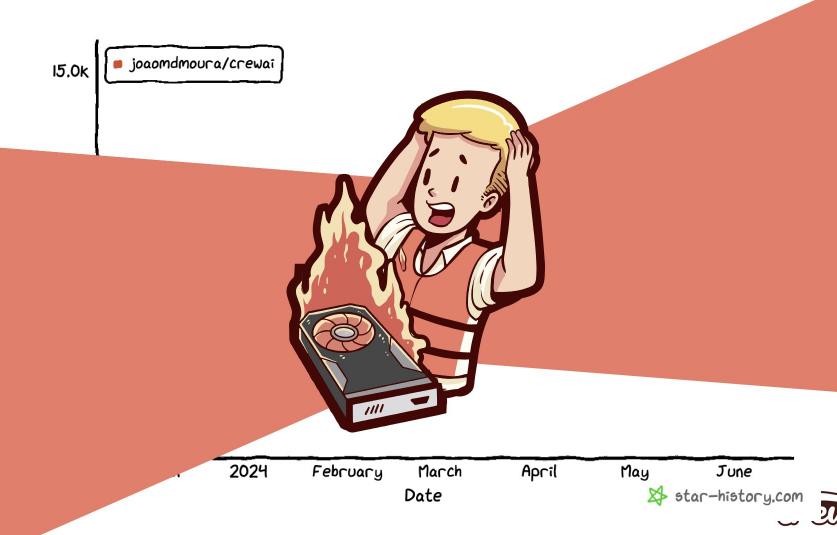


joaomdmoura/crewai Hallucinations 2024 February March April May June star-history.com Date

15.0k joaomdmoura/crewai

Tools Errors







18.7k+ Stars



9.5K+ Members



Top 19% of all reddits

marketing crew



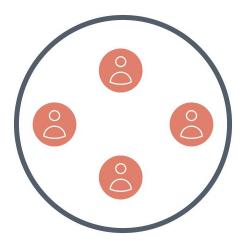








marketing **crew**





marketing crew High level rough idea -



marketing crew High level rough idea Look into X and LinkedIn



marketing crew Search the internet High level rough idea Look into X and LinkedIn

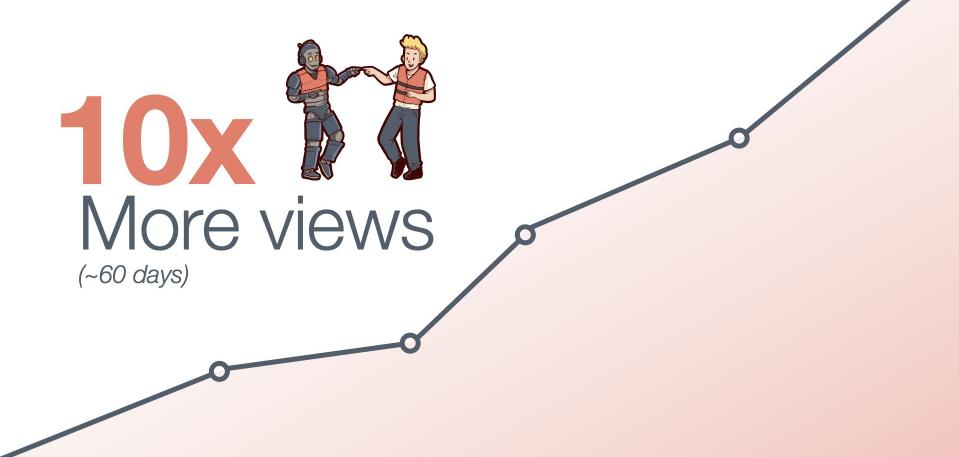


marketing crew Search the internet High level rough idea Look into X and LinkedIn Look my previous experiences



marketing crew Search the internet High level rough idea Incredible Draft Look into X and LinkedIn Look my previous experiences







high impact low risk



lead qualification crew

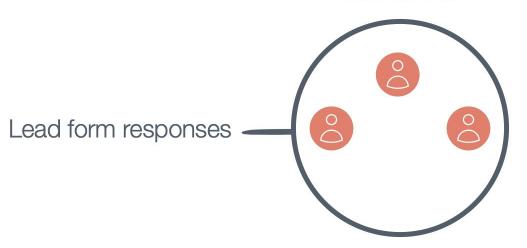




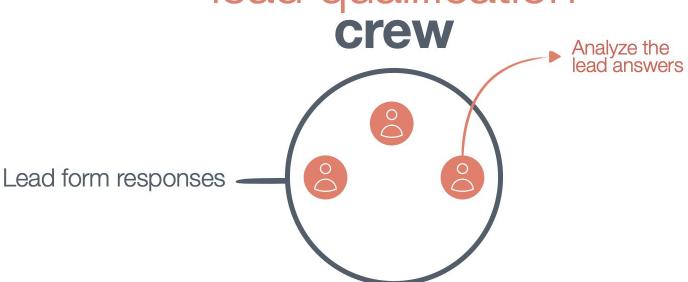




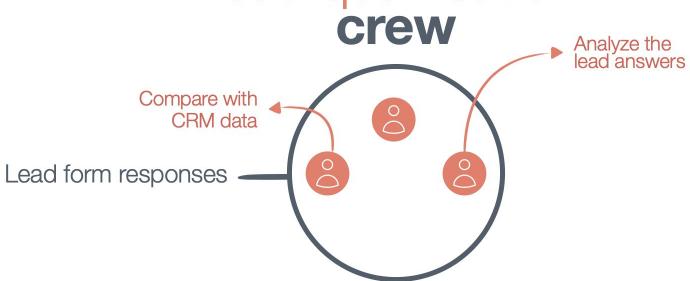
lead qualification **crew**



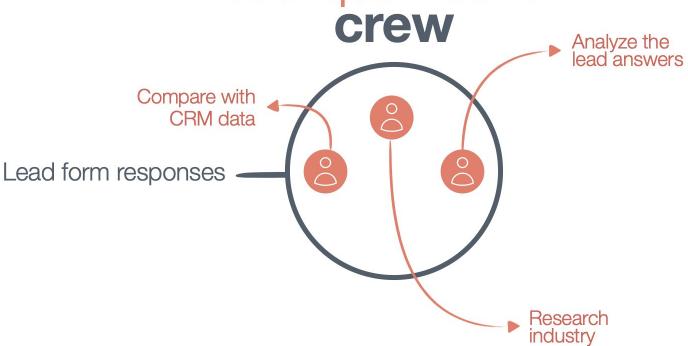




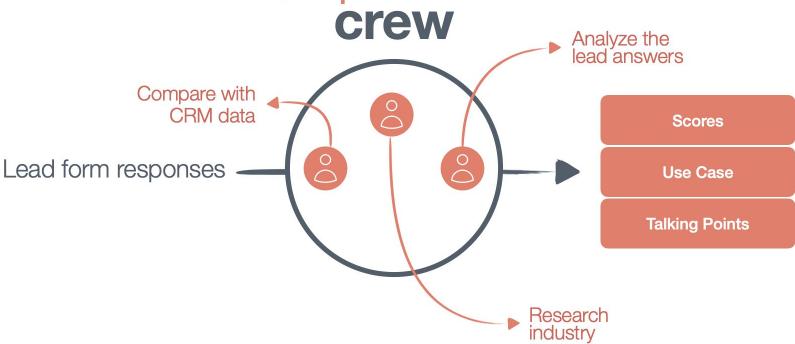




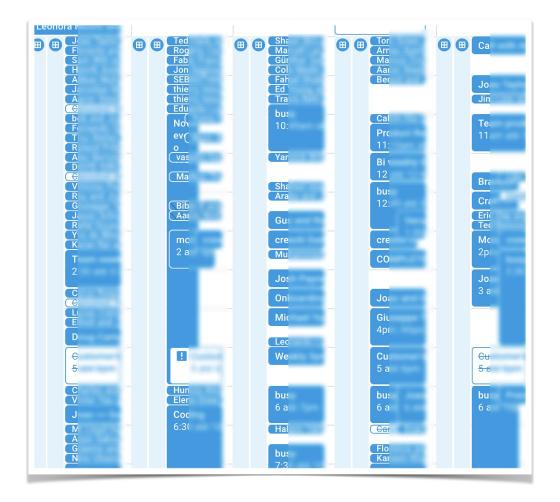


















BULDTIME



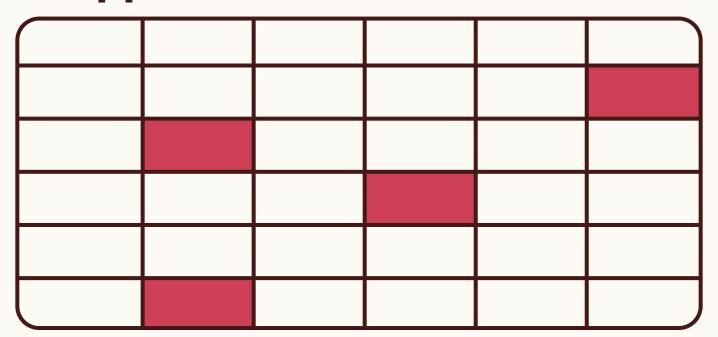
Support Data report



Support Data

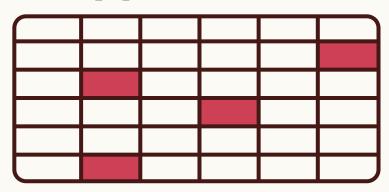


Support Data





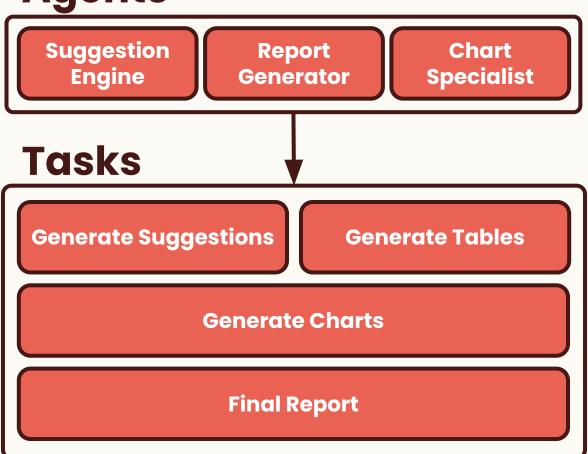
Support Data



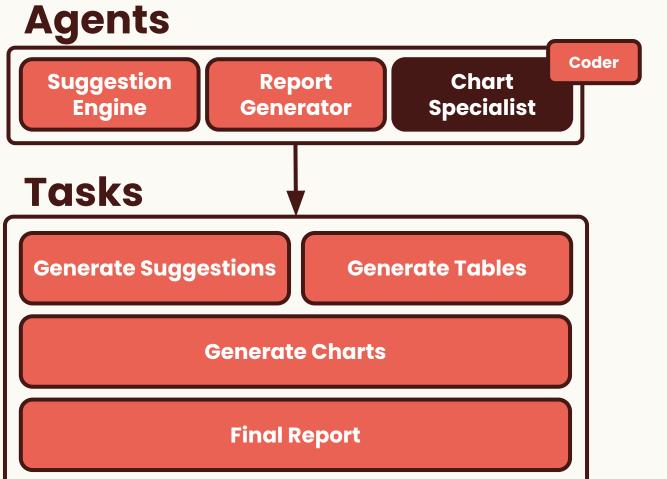
- Who are the customers?
- Who is helping from our team?
- Issue types?
- Issue descriptions?
- Frustrations?



Agents









Support Data Analysis

- Go over a series of data from support
- Generate suggestions for improvements
- Organize the data into tabular insights
- Plot charts to visualize trends
- Write a full final report on the analysis



■ support_tickets_data.csv > data

ticket_id, customer_id, issue_type, issue_description, priority, date_submitted, response_time_minutes, resolution_time_minutes, satisfaction_rating, customer_comments, agent_ T0001,C0511,API Issue,I'm pleased with how my issue was handled. Thanks!, High, 2023-03-25, 240,927,4,I'm pleased with how my issue was handled. Thanks!, A004, True T0002, C0729, Login Issue, Excellent service! The agent went above and beyond., Low, 2023-04-06, 223, 534, 5, The problem still persists. Not resolved yet., A004, False T0003, C0439, Report Generation, Resolution was satisfactory but could be improved., Low, 2023-04-25, 214, 592, 1, "The issue was escalated quickly, which was appreciated.", A T0004, C0100, Data Import, Agent was very helpful and polite. Great service!, High, 2023-02-20, 110, 864, 2, The issue was resolved quickly. Very satisfied!, A003, True T0005, C0258, Feature Request, "My issue was handled well, but follow-up could be better.", Medium, 2023-01-18, 151, 193, 2, The problem still persists. Not resolved yet., A00 T0006, C0526, Data Import, It took too long to resolve the issue. Not happy., Low, 2023-06-10, 134, 194, 2, This is the second time I'm facing this issue. Frustrating!, A002, This is the second time I'm facing this issue. T0007, C0415, Feature Request, It took too long to resolve the issue. Not happy., High, 2023-01-10, 64, 232, 1, The support team was unresponsive at first., A001, False T0008, C0602, Login Issue, Resolution was satisfactory but could be improved., Critical, 2023-02-22, 132, 578, 5, Good support but the resolution could have been faster., A002 T0009, C0934, API Issue, It took too long to resolve the issue. Not happy., High, 2023-06-23, 57, 46, 4, This is the second time I'm facing this issue. Frustrating!, A004, Fals T0010, C0410, Feature Request, Good support but the resolution could have been faster., Critical, 2023-03-28, 223, 1230, 3, This was a critical issue that took too long to re T0011, C0966, Report Generation, Agent was very helpful and polite. Great service!, High, 2023-03-12, 192, 1284, 2, The issue was ignored for too long. Disappointing., A001, Fa T0012, C0342, Billing Issue, Excellent service! The agent went above and beyond., Low, 2023-05-07, 35, 757, 4, The issue was ignored for too long. Disappointing., A003, True T0013, C0942, Billing Issue, The issue was ignored for too long. Disappointing., Critical, 2023-02-21, 121, 738, 4, It took too long to resolve the issue. Not happy., A003, Fal T0014, C0192, Login Issue, Thank you for resolving my issue quickly., Low, 2023-04-04, 129, 999, 5, Still waiting for a resolution. Not happy with the delay., A003, False T0015, C0270, Data Import, The agent understood my problem and solved it efficiently, High, 2023-06-08, 33, 657, 4, This is the second time I'm facing this issue. Frustratin T0016, C0836, Billing Issue, Thank you for resolving my issue quickly., High, 2023-05-26, 213, 361, 1, This is the second time I'm facing this issue. Frustrating!, A001, False T0017, C0218, API Issue, I'm pleased with how my issue was handled. Thanks!, Critical, 2023-03-06, 178, 652, 4, This is the second time I'm facing this issue. Frustrating!, A0 T0018, C0481, UI Bug, Agent was knowledgeable and solved my issue efficiently., Medium, 2023-06-22, 109, 278, 4, Excellent service! The agent went above and beyond., A004, True T0019, C0108, Feature Request, It took too long to resolve the issue, Not happy, High, 2023-04-03, 51, 293, 3, Thank you for resolving my issue quickly, A005, True T0020, C0202, Data Import, Agent was very helpful and polite. Great service!, Medium, 2023-03-13, 55, 685, 1, Happy with the response time but the resolution was lacking., A00 T0021, C0863, API Issue, It took too long to resolve the issue. Not happy., Medium, 2023-03-09, 145, 638, 5, The issue was resolved quickly. Very satisfied!, A004, False T0022, C0447, Report Generation, The problem still persists. Not resolved yet., High, 2023-01-31, 112, 185, 2, Agent was knowledgeable and solved my issue efficiently., A001, 7 T0023, C0386, Data Import, The agent understood my problem and solved it efficiently., Medium, 2023-05-15, 149, 234, 2, Agent was knowledgeable and solved my issue efficiently T0024, C0928, Data Import, Happy with the response time but the resolution was lacking., High, 2023-05-02, 142, 932, 1, The support team was unresponsive at first., A003, True T0025, C0256, UI Bug, This was a critical issue that took too long to resolve., High, 2023-06-06, 69, 347, 3, This is the second time I'm facing this issue. Frustrating!, A001 T0026, C0741, Login Issue, Agent was very helpful and polite. Great service!, Low, 2023-06-02, 188, 865, 3, "My issue was handled well, but follow-up could be better.", A004, F T0027, C0658, UI Bug, Agent was knowledgeable and solved my issue efficiently., Low, 2023-03-08, 172, 1179, 5, Still waiting for a resolution. Not happy with the delay., A004, T0028, C0988, UI Bug, "Overall satisfied, but the process could be faster.", Low, 2023-01-18, 142, 1055, 4, Excellent service! The agent went above and beyond., A002, True T0029, C0304, Login Issue, It took too long to resolve the issue. Not happy., Critical, 2023-05-28, 208, 719, 4, The problem still persists. Not resolved yet., A004, True T0030, C0648, Billing Issue, The issue was ignored for too long. Disappointing., Medium, 2023-05-25, 15, 556, 1, This is the second time I'm facing this issue. Frustrating!, A T0031, C0195, Billing Issue, Agent was knowledgeable and solved my issue efficiently., High, 2023-06-13, 105, 814, 1, Good support but the resolution could have been faster., T0032, C0412, Feature Request, Happy with the response time but the resolution was lacking. High, 2023-01-18, 43, 105, 2, It took too long to resolve the issue. Not happy. A T0033,C0352,Billing Issue,This is the second time I'm facing this issue. Frustrating!,Low,2023-05-03,170,1189,3,It took too long to resolve the issue. Not happy, A00 T0034.C0871.Data Import.The issue was resolved quickly. Very satisfied!.Low.2023-06-17.77.650.3.Thank you for resolving my issue quickly..A003.False

```
suggestion_generation_agent:
 role: >
   Suggestion Engine
 goal: >
   Generate actionable suggestions for resolving issues identified
    in the support tickets, leveraging historical data and
    predefined rules.
  backstory: >
   You specialize in analyzing past resolutions and current issues
    to provide tailored suggestions that can help the support team
    resolve tickets efficiently.
  verbose: true
 allow_delegation: false
```



suggestion_generation:

description: >

Generate actionable suggestions for resolving each classified support ticket The suggestions should be based on:

- Issue Type: Tailor suggestions to the specific type of issue reported.
- Historical Data: Use historical data such as resolution_time_minutes and satisfaction_rating to inform the suggestions.
- Customer Feedback: Incorporate insights from customer_comments to customize the suggestions further.

The goal is to provide clear, actionable steps that the support team can take to resolve each issue efficiently and effectively.

expected_output: >

A list of actionable suggestions linked to each classified support ticket, optimized for quick and effective resolution by the support team.



```
# Creating Agents
v suggestion_generation_agent = Agent()
    config=agents_config['suggestion_generation_agent'],
   tools=[csv_tool]
vreporting_agent = Agent(
    config=agents_config['reporting_agent'],
   tools=[csv_tool]

∨ chart_generation_agent = Agent(
    config=agents_config['chart_generation_agent'],
    allow_code_execution=True,
    llm=gpt_4o
```



```
# Creating Agents
v suggestion_generation_agent = Agent()
   config=agents_config['suggestion_generation_agent'],
   tools=[csv_tool]
vreporting_agent = Agent(
    config=agents_config['reporting_agent'],
   tools=[csv_tool]

∨ chart_generation_agent = Agent(
    config=agents_config['chart_generation_agent'],
   allow_code_execution=True,
   llm=gpt_4o
```

```
# Creating Tasks
config=tasks_config['suggestion_generation'],
   agent=suggestion_generation_agent
\vee table_generation = Task(
   config=tasks_config['table_generation'],
   agent=reporting_agent
\vee chart_generation = Task(
   config=tasks_config['chart_generation'],
   agent=chart_generation_agent
\vee final_report_assembly = Task(
   config=tasks_config['final_report_assembly'],
   agent=reporting_agent,
   context=[suggestion_generation, table_generation, chart_generation]
```

```
# Creating Tasks
config=tasks_config['suggestion_generation'],
   agent=suggestion_generation_agent
\vee table_generation = Task(
   config=tasks_config['table_generation'],
   agent=reporting_agent

∨ chart_generation = Task(
   config=tasks_config['chart_generation'],
   agent=chart_generation_agent
v final_report_assembly = Task(
   config=tasks_config['final_report_assembly'],
   agent=reporting agent
   context=[suggestion_generation, table_generation, chart_generation]
```



crewai test



Tasks Scores (1–10 Higher is better)

Tasks/Crew	Run 1	Avg. Total
Task 1	8.0	8.0
Task 2	7.0	7.0
Task 3	9.0	9.0
Task 4	9.0	9.0
Crew	8.25	8.2
Execution Time (s)	214	214



Tasks Scores (1–10 Higher is better)

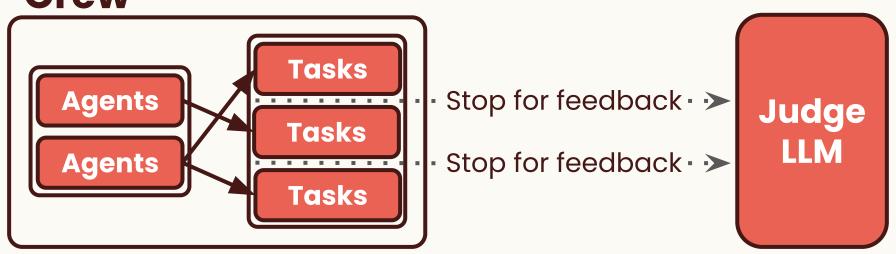
Tasks/Crew	Run 1	Avg. Total
Task 1	8.0	8.0
Task 2	7.0	7.0
Task 3	9.0	9.0
Task 4	9.0	9.0
Crew	8.25	8.2
Execution Time (s)	214	214



crewai train



Crew





Tasks Scores (1–10 Higher is better)

Tasks/Crew/Agents	Run 1	Run 2	Run 3	Avg. Total	Agents
Task 1	8.75	9.0	9.0	8.91	– Suggestion Engine
Task 2	9.0	8.0	9.0	8.7	– Report Generator
Task 3	9.0	10.0	9.0	9.3	– Chart Specialist
Task 4	8.0	9.0	9.0	8.66	– Report Generator
Crew Execution Time (s)	8.25 141	9.0 181	9.0 178	8.75 166	



Avg. Total 8.0 8.91 7.0 8.70 9.0 9.3 9.0 8.66 8.2 8.75 214 166

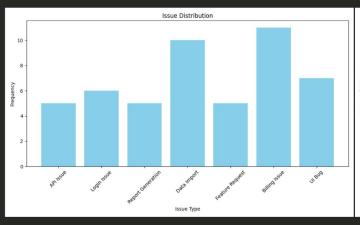


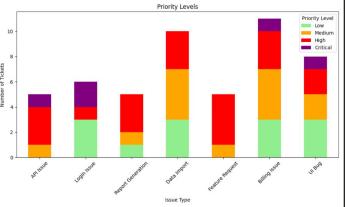
Comprehensive Support System Report

Issue Classification Results

Overview: The table below provides an overview of the types of issues reported, their frequency, and their priority levels.

Issue Type	Frequency	Priority Levels (Low, Medium, High, Critical)
API Issue	5	0, 1, 3, 1
Login Issue	6	3, 0, 1, 2
Report Generation	5	1, 1, 3, 0
Data Import	10	3, 4, 3, 0
Feature Request	5	0, 1, 4, 0
Billing Issue	11	3, 4, 3, 1
UI Bug	7	3, 2, 2, 1



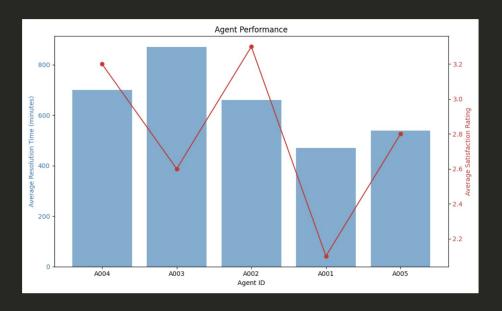




Agent Performance

Overview: Insights into the performance of support agents are provided in the table below, based on metrics like resolution time and customer satisfaction.

Agent ID	Number of Tickets	Average Resolution Time (minutes)	Average Response Time (minutes)	Average Satisfaction Rating
A004	17	699.2	145.4	3.2
A003	12	869.4	110.5	2.6
A002	10	660.4	144.9	3.3
A001	7	470.1	100.1	2.1
A005	4	538.3	106.0	2.8

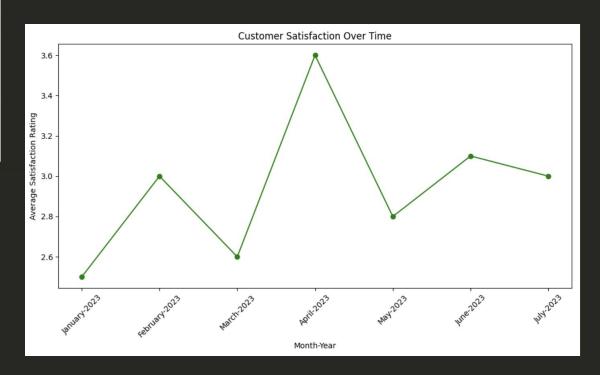




Customer Satisfaction Over Time

Overview: The following table summarizes the customer satisfaction ratings and their trends over time.

Time Period (Month-Year)	Average Satisfaction Rating
January-2023	2.5
February-2023	3.0
March-2023	2.6
April-2023	3.6
May-2023	2.8
June-2023	3.1
July-2023	3.0





Suggested Actions

API Issues

- Tickets: T0001, T0009, T0017, T0021, T0046
 - Agents should: Review the API documentation thoroughly and ensure any updates are communicated to the customers.
 - Historical Data: Aim to reduce resolution time by providing clear guidelines and checklists for common API issues.
 - Customer Feedback: Regular training on API troubleshooting would be beneficial.

Login Issues

- Tickets: T0002, T0008, T0014, T0026, T0029, T0038
 - o Agents should: Verify user credentials and system logs promptly.
 - Historical Data: Address login issues with utmost urgency to improve satisfaction ratings.
 - Customer Feedback: Implementing automated scripts to diagnose and solve common login issues can speed up the process.

Report Generation Issues

- Tickets: T0003, T0011, T0022, T0037, T0049
 - o Agents should: Ensure the report generation systems are running smoothly and address any bugs immediately.
 - Historical Data: Aim to reduce resolution times by preemptively identifying and fixing common report generation errors.
 - Customer Feedback: Regular system maintenance and updates can help reduce delays.

Data Import Issues

- Tickets: T0004, T0006, T0015, T0020, T0023, T0024, T0034, T0045, T0047, T0048
 - Agents should: Ensure data formats are correct and consistent. Provide clear instructions for data import processes.
 - Historical Data: Standardizing data validation processes can help reduce varied resolution times.
 - Customer Feedback: Implementing more robust validation checks can improve satisfaction.



Feature Requests

- Tickets: T0005, T0007, T0019, T0032, T0041
 - o Agents should: Collect detailed requirements from customers and communicate timelines effectively.
 - Historical Data: Setting clear expectations with customers can improve satisfaction.
 - Customer Feedback: Regular updates on the progress of feature requests can help manage expectations.

Billing Issues

- Tickets: T0012, T0013, T0016, T0030, T0031, T0033, T0035, T0036, T0040, T0042, T0050
 - o Agents should: Review billing systems and ensure all transactions are processed correctly.
 - o Historical Data: Quick resolution of billing issues is crucial to customer satisfaction.
 - Customer Feedback: Regular audits and prompt corrections can enhance trust and satisfaction.

UI Bugs

- Tickets: T0018, T0025, T0027, T0028, T0043, T0044
 - Agents should: Prioritize UI bug fixes and ensure a smooth user experience.
 - Historical Data: UI bugs should be resolved quickly to prevent negative customer experiences.
 - Customer Feedback: Implementing a streamlined bug reporting and fixing process can improve response times and s

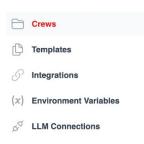


NEW FEATURE COMING NEXT VERSION ae o ov



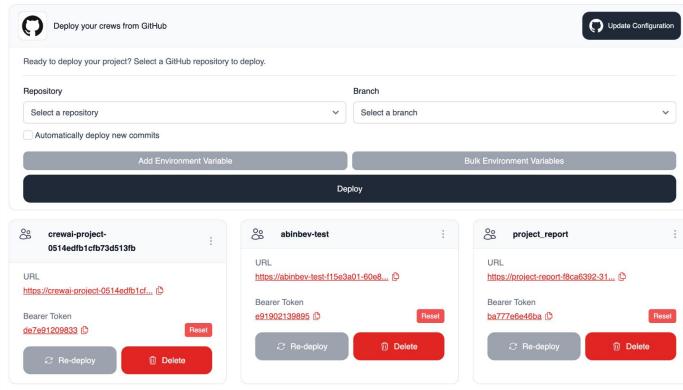


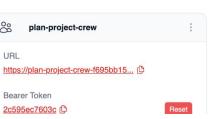






UI Studio



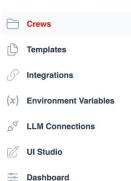




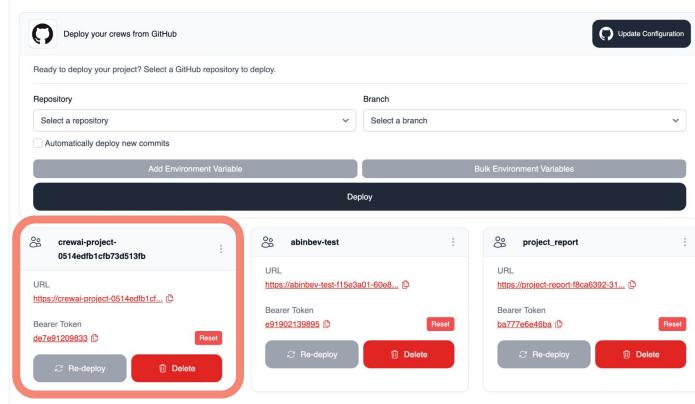


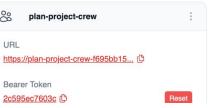






Storage















Templates

Integrations

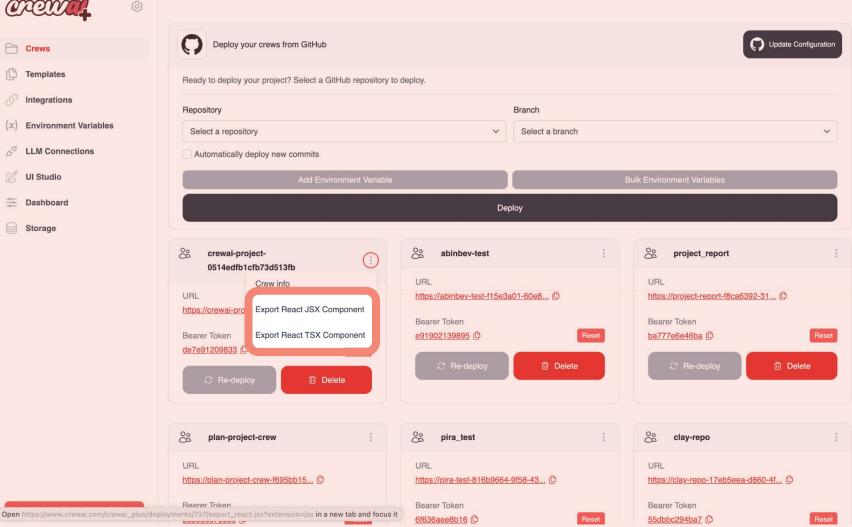
Environment Variables

LLM Connections

UI Studio

Dashboard

Storage



Overall Crew Activity





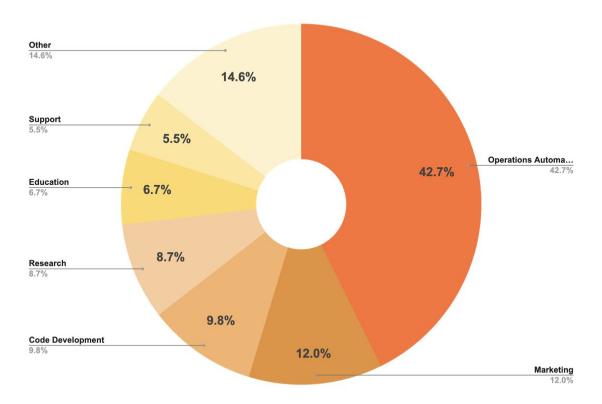
100K Crews Executed

Daily





This slide was made by a crew using crewAl





What about the Future?



Genie is not getting back in the bottle

Al will have a bigger impact than the internet even had!



Be an early adopter

- Don't wait for others' use cases
- Start simple
- Expand to low risk high impact



CARLYLE











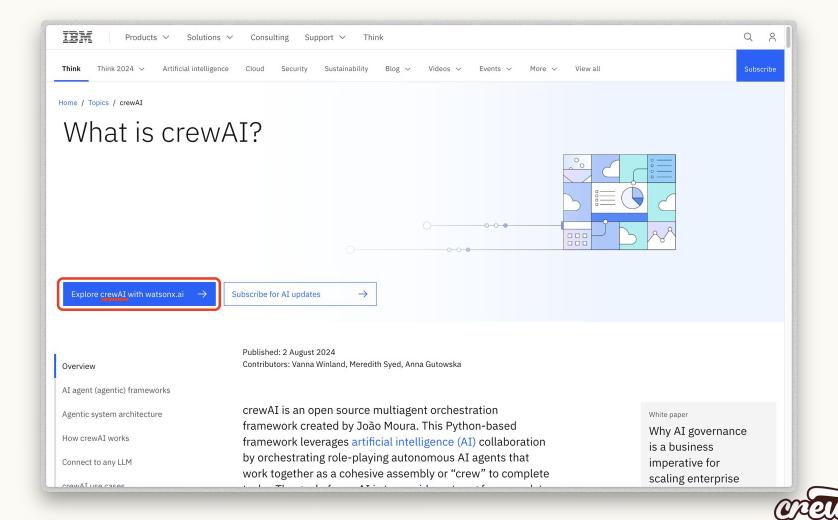


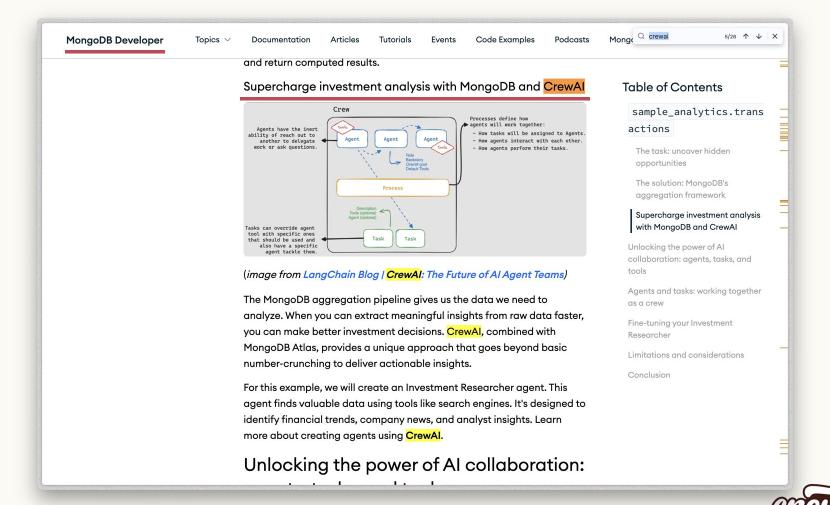












Principal Research Scientist, Futures Design

Amazon.com Services LLC 🔼 Seattle, WA

You must create an Indeed account before continuing to the company website to apply



- publications that advance state-of-the art for applied science
- Deep and broad expertise in state-of-the-art generative Al methodologies, such as building simulacra with frameworks like Autogen, CrewAl, or ChatDev
- Experience with structured (e.g. knowledge graphs) and/or unstructured knowledge sources
- Track record of solving complex technical problems
- Exhibits excellent business judgment; balances business, product, and technology very well
- Experience working with real-world data sets and building scalable models from large-scale data

Amazon is committed to a diverse and inclusive workplace. Amazon is an equal opportunity employer and does not discriminate on the basis of race, national origin, gender, gender identity, sexual orientation, protected veteran status, disability, age, or other legally protected status. For individuals with disabilities who would like to request an accommodation, please visit https://www.amazon.jobs/en/disability/us.

Senior Data Scientist

Cloudflare ☑ | Austin, TX • Remote

Apply now

X



customer and revenue growth)

- 2+ years experience with a fast-growing SaaS business based company is preferred.
- Strong experience in scientific computing using Python.
- Experience with Spark, SQL, Tableau, Google Analytics, BigQuery (or any other Big data/Cloud equivalent) etc.
- Experience working with and processing structured, unstructured, and semi-structured data.
- Strong cross-functional collaboration experience with data engineering and data analysts teams within the function.
- Proven track record of applying data insights and machine learning in order to address business needs and drive revenue.
- Proficiency in large language models and the frameworks (Langchain, Llamaindex, CrewAl, etc.) necessary for implementing GenAl applications, such as chatbots and related use cases.
- Strong communication and presentation skills catered to different audiences within the company.
- Capable of working closely with business,



×

Everything you need to know about

Multi Agent Systems and how to build them!





Enroll Now at Deeplearning.ai

Get your badge certificate!



Everything you need to know about

Multi Agent



learn.crewai.com



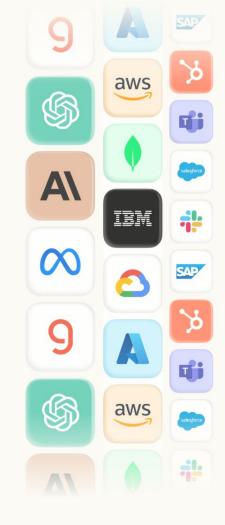


Enroll Now at Deeplearning.ai

Get your badge certificate!







Research	
Analysis	
Summary	
Reporting	



	Existing Systems
Research	
Analysis	
Summary	
Reporting	
	Existing Systems



Research Documents Internet CRM







Existing Systems Documents Internet CRM Research Compare **Extract** Infer Analysis Learnings **Exec Sumamry** Charts Summary



