

## **Multi-Agent Code Analysis & Documentation System**

### **Authentication and Signup Flow**

- Signup/Registration flow for new users
- Login as either User or Admin
- User sees their own projects

The screenshot shows the login interface for the "Intelligent Code Analysis Platform". At the top right, there is a "Deploy" button with a gear icon. The main title is "Welcome Back" with a small profile icon. Below it, the platform name "Intelligent Code Analysis Platform" is displayed. A "Demo Account" section shows placeholder email and password fields. The login form includes fields for "Email Address" (with value "you@example.com") and "Password" (with placeholder "Enter your password"). There is also a "Remember me" checkbox. A large "Log In" button is centered at the bottom of the form. Below the form, a link says "Don't have an account? [Create one now](#)" and a "Create New Account" button is visible.

Deploy ⚙

Welcome Back

Intelligent Code Analysis Platform

Demo Account:

Email: demo@example.com  
Password: demo123456

Email Address

Password

Remember me

Don't have an account? [Create one now](#)

- Uploads codebase (ZIP or GitHub URL)

The screenshot shows a web browser window with the URL `localhost:8502`. On the left, there is a sidebar for user authentication with fields for email and password, and a "Log Out" button. Below this is a section for "GitHub URL" and "Upload ZIP". The "Upload ZIP" section contains a file input field with "sample-5.zip" selected, showing a size of 8.0MB. There is also a "Project Name" field set to "ZIP File Analysis - 1" and a "Generate docs for:" dropdown containing "sde" and "pm". A "Upload & Analyze" button is present. The main content area is titled "Multi-Agent Code Analysis Dashboard" and "My Repository Analysis - 1". It displays repository intelligence data: Repo Type is UNKNOWN, Code Chunks are 0, Confidence is 85%, Total Files are 134, and Frameworks are 0. It also lists "Detected Frameworks" and "Important Files" (a table with one entry: README.md). At the bottom, there is a section titled "Persona-Specific Insights".

- Selects target personas (SDE, PM, or both)

- User-controlled analysis flow with interactive pause/resume
- Initiates analysis
- See project created with unique identifier
- Files that are too large (define reasonable limit, e.g., 100MB)

localhost:8501

ankumar23@deloitte.com

Role: user

GitHub URL: [Upload ZIP](#)

Upload ZIP File

Select ZIP file

Drag and drop file here  
Limit 200MB per file + ZIP

Browse files

sample-5... x 8.0MB

Project Name

ZIP File Analysis - 2

Generate docs for:

sde x pm x

Upload & Analyze

ID: 3b93b746-9684-40bb-8ef5-e6edf5867898

GitHub: <https://github.com/ankumar23-blip/Multi-Agent-Code-Analysis-Documentation-System>

Personas: SDE, PM

X Status: FAILED

Error: 'dict' object has no attribute 'name'

Created: 2025-12-11

[View Details](#)

ID: 25e113e9-695a-4a92-b386-55f1ec54a612

GitHub: <https://github.com/ankumar23-blip/Multi-Agent-Code-Analysis-Documentation-System>

Personas: SDE

X Status: FAILED

Error: 'dict' object has no attribute 'name'

Created: 2025-12-11

[View Details](#)

**ZIP File Analysis - 1**

ID: ca47899b-e695-473e-a522-4d7c03586516

Uploaded ZIP: sample-5.zip

Personas: SDE, PM

✓ Status: COMPLETED

Created: 2025-12-11

[View Details](#)

**ZIP File Analysis - 2**

ID: b998cf4-4ef1-492f-88e7-8966bed57ff9

Uploaded ZIP: sample-5.zip

Personas: SDE, PM

⏳ Status: ANALYZING

Detecting frameworks...

45%

Created: 2025-12-11

[View Details](#)

- Views structured reports per persona

The image displays two side-by-side screenshots of a web-based application interface. Both screenshots show a header with a user profile icon and the email address "ankumar23@deloitte.com". Below the header, there is a "Role: user" section with a "Log Out" button.

**Screenshot 1: Persona-Specific Insights - SDE Analysis**

This screenshot shows the "Software Development Engineer Analysis" section. It includes:

- Project Summary:** A message stating "This is a UNKNOWN project with the following characteristics:" followed by a bulleted list of analysis results.
- Key Characteristics:** A list of project metrics including average function size, configuration files, dependencies, and confidence score.
- Architecture Pattern:** A section labeled "Architecture Pattern" with a "Custom" option selected.
- Framework Stack:** A section labeled "Framework Stack" with "None" listed.

**Screenshot 2: Persona-Specific Insights - PM Analysis**

This screenshot shows the "Project Manager Analysis" section. It includes:

- Key Characteristics:** A list of project metrics including average function size, configuration files, dependencies, and confidence score.
- Architecture Pattern:** A section labeled "Architecture Pattern" with a "Custom" option selected.
- Framework Stack:** A section labeled "Framework Stack" with "None" listed.
- Technical Details:** A collapsed section under "Code Quality" containing "SDE Recommendations" and "Key Files for SDE".
- Code Chunks:** A section showing "Total Chunks: 0".
- Code Search:** A search bar with placeholder text "e.g., 'authentication', 'database', 'api endpoints'...".

[ankumar23@deloitte.com](#)

Role: user

[Log Out](#)

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[GitHub URL](#) [Upload ZIP](#)

### GitHub Repository

Project Name  
My Repository Analysis - 1

GitHub URL  
<https://github.com/vivek9patel/vivek9patel.github.io>

Generate docs for:  
[sde](#) [pm](#) [...](#)

Description (optional)  
GitHub Repository Analysis - 1

[Create Project](#)

**Persona-Specific Insights**

[SDE Analysis](#) [PM Analysis](#)

### Product Manager Analysis

**Project Overview:**  
This is a **General-purpose Application** built with **Custom implementation**.

**Project Scope:**

- Total Files: 134
- Code Implementation Files: 0
- Key Functions/Features: 0
- Technology Stack: UNKNOWN
- Deployment Type: Traditional Server/Cloud
- Configuration Files: 0

**README Summary:** This is a personal portfolio website of theme Ubuntu 20.04, made using Next.js & tailwind CSS. If you want to edit this. Clone this project and edit the files in /src/components..

**Scale & Complexity:**

- Repository contains 0 implementation files across 0 entry points
- 0 external dependencies integrated
- Confidence in analysis: 85%

**Key Capabilities Identified:** Based on code analysis, this project implements core functionality in UNKNOWN with detected frameworks: Custom implementation

Identified Features	
<b>Authentication:</b>	<b>Data Management:</b>
• Not detected	• Not detected

[ankumar23@deloitte.com](#)

Role: user

[Log Out](#)

---

[GitHub URL](#) [Upload ZIP](#)

### GitHub Repository

Project Name  
My Repository Analysis - 1

GitHub URL  
<https://github.com/vivek9patel/vivek9patel.github.io>

Generate docs for:  
[sde](#) [pm](#) [...](#)

Description (optional)  
GitHub Repository Analysis - 1

[Create Project](#)

**Persona-Specific Insights**

[SDE Analysis](#) [PM Analysis](#)

### Product Manager Analysis

**Project Overview:**  
This is a **General-purpose Application** built with **Custom implementation**.

**Key Capabilities Identified:** Based on code analysis, this project implements core functionality in UNKNOWN with detected frameworks: Custom implementation

Identified Features	
<b>Authentication:</b>	<b>Data Management:</b>
• Not detected	• Not detected

User Flows	
<b>Primary Flows:</b>	
• User Authentication	
• Data Access/Query	
• Content Creation/Update	
• System Integration	
• Error Handling & Logging	

Business Logic	
<b>Core Functions:</b>	
<b>Business Rules:</b>	
• Input validation and sanitization	
• Access control and permissions	

The screenshot shows a user interface for a project analysis tool. On the left, there's a sidebar with a user profile (ankumar23@deloitte.com), role (user), and a 'Log Out' button. Below that is a 'GitHub Repository' section with fields for 'Project Name' (My Repository Analysis - 1), 'GitHub URL' (https://github.com/vivek9patel/vivek9patel.github.io), and 'Generate docs for:' (sde x pm x). A 'Description (optional)' field contains 'GitHub Repository Analysis - 1'. At the bottom of this sidebar is a 'Create Project' button. The main content area on the right displays several sections: 'PM Recommendations' (a bulleted list of 6 items including 'Implement caching layer for frequently accessed data'), 'Stakeholders' (a list including 'Product Owner', 'Engineering Lead', and 'DevOps Team'), and 'Code Chunks' (a section showing 'Total Chunks: 0').

## ● Explores visual diagrams

This screenshot shows the same application interface but with a different focus. The left sidebar includes 'GitHub URL' and 'Upload ZIP' fields. The main content area features a 'Visual Diagrams & Export' section with tabs for 'Load Diagrams', 'Export Markdown', and 'Export PDF (demo)'. Under 'Flowchart Diagram', there is a flowchart with nodes A, B, C, D, and E. Under 'Flow Diagram', there is a flowchart with nodes Start, detect, analyze, extract, and end. Under 'Sequence Diagram', there is a sequence diagram involving participants U (User), API, and S (Analyzer). At the bottom, there is an 'Er Diagram' section.

- Asks follow-up questions

The screenshot shows the 'ZIP File Analysis - 1' interface. On the left, there's a sidebar with 'Role: user', 'GitHub URL' (disabled), and a 'Upload ZIP' button. Below it is a 'Upload ZIP File' section with a file input, a drag-and-drop area, and a 'Browse files' button. A preview shows 'sample-5... 8.0MB'. Under 'Project Name', it says 'ZIP File Analysis - 1'. In 'Generate docs for:', 'sde' and 'pm' are selected. At the bottom is an 'Upload & Analyze' button.

**ZIP File Analysis - 1**

**Repository Intelligence**

Repo Type	Code Chunks	Confidence
UNKNOWN	0	85%
Code Files	Total Files	Frameworks
0	7	0

**Detected Frameworks:** Entry Points:

**Interactive Q&A and Context**

Ask about current analysis or codebase  
Your question: What are you analyzing right now?  
Instruction: Focus more on the payment module  
Priority: normal  
Add Context

**Visual Diagrams & Export**

Load Diagrams Export Markdown Export PDF (demo)

- Downloads documentation in multiple formats

The sidebar remains the same as the previous screenshot. The main area shows the 'Visual Diagrams & Export' section with 'Load Diagrams', 'Export Markdown', and 'Export PDF (demo)' buttons. A note says 'PDF generation with rendered Mermaid is not implemented in this demo build.' Below this is a 'Download PDF (raw md content)' button.

**Persona-Specific Insights**

**SDE Analysis** **PM Analysis**

**Software Development Engineer Analysis**

**Project Summary:**

This is a UNKNOWN project with the following characteristics:

- Language: UNKNOWN
- Total Files: 7
- Code Files: 0
- Functions/Classes: 0
- Frameworks: None detected

User interface screenshot showing the analysis of a ZIP file named "sample-5...".

**Left Panel:**

- Role: user
- GitHub URL: [Upload ZIP](#)
- Upload ZIP File:
  - Select ZIP file
  - Drag and drop file here
  - Limit 200MB per file + ZIP
  - Browse files
- Project Name: ZIP File Analysis - 2
- Generate docs for:
  - sde
  - pm
- Upload & Analyze

**Right Panel:**

- Deploy
- Add Context
- Visual Diagrams & Export
  - Load Diagrams
  - Export Markdown
  - Export PDF (demo)
  - Download .md
- Persona-Specific Insights**
  - SDE Analysis
  - PM Analysis
- Software Development Engineer Analysis**
- Project Summary:**

This is a UNKNOWN project with the following characteristics:

  - Language: UNKNOWN
  - Total Files: 7
  - Code Files: 0
  - Functions/Classes: 0
  - Frameworks: None detected
  - Complexity Level: Low
  - Entry Points: 0 found

User interface screenshot showing the analysis of a ZIP file named "sample-5...".

**Left Panel:**

- Role: user
- GitHub URL: [Upload ZIP](#)
- Upload ZIP File:
  - Select ZIP file
  - Drag and drop file here
  - Limit 200MB per file + ZIP
  - Browse files
- Project Name: ZIP File Analysis - 2
- Generate docs for:
  - sde
  - pm
- Upload & Analyze

**Right Panel:**

- Deploy
- Add Context
- Visual Diagrams & Export
  - Load Diagrams
  - Export Markdown
  - Export PDF (demo)
  - Download .md
- Persona-Specific Insights**
  - SDE Analysis
  - PM Analysis
- Software Development Engineer Analysis**
- Project Summary:**

This is a UNKNOWN project with the following characteristics:

  - Language: UNKNOWN
  - Total Files: 7
  - Code Files: 0
  - Functions/Classes: 0
  - Frameworks: None detected
  - Complexity Level: Low
  - Entry Points: 0 found

ankumar23@deloitte.com  
Role: user

**Multi-Agent-Codebase-Analysis**

Uploaded ZIP: multiagent\_code\_analysis\_project.zip

**Repository Intelligence**

Repo Type	Code Chunks	Confidence
PYTHON	16	85%
Code Files	Total Files	Frameworks
17	43	1

**Detected Frameworks:**

- FASTAPI

**Entry Points:**

- backend\main.py
- dashboard\app.py
- backend\requirements.txt
- dashboard\requirements.txt

**Important Files:**

File Name	Type	Size (KB)	Path
README.md	md	0.15	dashboard\README.md
README.md	md	0.56	backend\README.md
README.md	md	1.79	README.md
main.py	py	0.55	backend\main.py
app.py	py	1.32	dashboard\app.py

ankumar23@deloitte.com  
Role: user

**Important Files:**

File Name	Type	Size (KB)	Path
README.md	md	0.15	dashboard\README.md
README.md	md	0.56	backend\README.md
README.md	md	1.79	README.md
main.py	py	0.55	backend\main.py
app.py	py	1.32	dashboard\app.py
requirements.txt	txt	0.14	backend\requirements.txt
requirements.txt	txt	0.03	dashboard\requirements.txt
requirements.txt	txt	0.14	backend\requirements.txt
requirements.txt	txt	0.03	dashboard\requirements.txt
Dockerfile	no-extension	0.14	backend\Dockerfile

**Interactive Q&A and Context**

**Visual Diagrams & Export**

**Persona-Specific Insights**

**SDA Analysis**

**Software Development Engineer Analysis**

ankumar23@deloitte.com  
Role: user  
Log Out

[GitHub URL](#) [Upload ZIP](#)

**Upload ZIP File**

Select ZIP file  
Drag and drop file here  
Limit 200MB per file + ZIP  
Browse files  
multitage... x 13.6KB

Project Name  
Multi-Agent-Codebase-A

Generate docs for:  
sde x  
Upload & Analyze

---

## Persona-Specific Insights

### SDE Analysis

## Software Development Engineer Analysis

**Project Summary:**

This is a PYTHON project with the following characteristics:

- Language: PYTHON
- Total Files: 43
- Code Files: 17
- Functions/Classes: 16
- Frameworks: fastapi
- Complexity Level: Low
- Entry Points: 4 found
  - Languages Detected: python(17)

**Key Characteristics:**

- Average function size: ~1.7 lines
- Configuration files: 4
- Dependencies: 0
- Confidence Score: 85%

**Architecture Pattern:**  
MVC/REST API

**Framework Stack:**  
fastapi

ankumar23@deloitte.com  
Role: user  
Log Out

[GitHub URL](#) [Upload ZIP](#)

**Upload ZIP File**

Select ZIP file  
Drag and drop file here  
Limit 200MB per file + ZIP  
Browse files  
multitage... x 13.6KB

Project Name  
Multi-Agent-Codebase-A

Generate docs for:  
sde x  
Upload & Analyze

---

**Architecture Pattern:**  
MVC/REST API

**Framework Stack:**  
fastapi

**Technical Details**

Language: python  
Dependencies: 0

Total Files	Code Files	Code Chunks
43	17	16

**Code Quality**

Code Structure Rating: Good - Clear structure with identifiable patterns  
Dependency Health: Healthy - Minimal dependencies reduce maintenance burden

**Suggested Improvements:**

- Add unit tests for critical paths
- Document complex algorithms
- Consider adding type hints for better IDE support
- Implement error handling in key functions
- Add integration tests for external dependencies

**SDE Recommendations**

- Review and update outdated dependencies
- Implement comprehensive logging for debugging

**SDE Recommendations**

1. Review and update outdated dependencies
2. Implement comprehensive logging for debugging
3. Add API documentation if applicable
4. Set up automated testing pipeline
5. Consider refactoring large files
6. Implement design patterns for better maintainability

**Key Files for SDE**

- main.py (py)
- app.py (py)
- requirements.txt (txt)
- requirements.txt (txt)
- requirements.txt (txt)
- Dockerfile (no-extension)
- Dockerfile (no-extension)
- init.py (py)

**Code Chunks**

**Code Chunks**

Total Chunks: 16

- main.py (file)  
backend\main.py:0-22  
View Code
- app.py (file)  
dashboard\app.py:0-35  
View Code
- Orchestrator (class)  
backend\workers\orchestrator.py:10-10  
View Code
- init (function)

The screenshot shows a software interface with a sidebar and a main content area. The sidebar includes:

- User information: `ankumar23@deloitte.com`, Role: user, Log Out button.
- GitHub URL input field.
- Upload ZIP file section with a file input field for "multiage..." (13.6KB) and a "Browse files" button.
- Project Name: Multi-Agent-Codebase-A.
- Generate docs for: sde (selected).
- Upload & Analyze button.

The main content area is titled "Code Search" and shows results for "class". It lists two items:

- Orchestrator**: backend/workers/orchestrator.py (10% previewed)
- core.py**: backend/core.py (10% previewed)

Code snippets from these files are visible in the preview boxes.

## After Enhancing the UI

The enhanced login form includes:

- Email Address: `ankumar23@deloitte.com`.
- Password: `*****`.
- Remember me checkbox.
- Log In button.
- A green success message box: `Logged in successfully!`.
- Links for "Don't have an account?" and "Create New Account".