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# Introduction

# Main Features

# Forming a Development Team

Development Team

Stated below are the names, roles and skill required for this project

|  |  |  |
| --- | --- | --- |
| Name | Role | Skills |
| Chiagozie Maduemesi | Product Owner | Business strategy, stakeholder communication |
| Faith Okunola | Content Strategist and researcher | Market analysis, persona creation, content writing |
| Onolemen Omokhuale | UI/UX Designer | Figma, prototyping, user research |
| Shresta Rapol | Back End Developer | Database design, server-side development |
| David Carter | Full Stack Developer | Node.js, React.js, MongoDB, API development |
| Mese Lee | Q/A Engineer | Testing frameworks, front-end coding, documentation |
| Oneal Williams | Scrum Master | Agile processes, team facilitation |

The Development team is presented below

|  |  |  |
| --- | --- | --- |
| Role | Team Members | Task |
| Porduct Owner | Chiagozie Maduemesi | - Represents the customer and stakeholder interests |
|  |  | - Prioritizes features and manages the product backlog. |
|  |  | - Defines the vision and goals for Co-Lab Connect. |
| Scrum Master | Oneal Williams | - Facilitates sprint planning, reviews and retrospectives and ensure the team follows agile principle. |
| Brain Storming | Onolemen Omokhuale, Shresta Rapol, Faith Okunola, David Carter. | - Generating ideas for user experience and technical implementation |
| Research | Faith Okunola, Omokhuale Onolemen | -Findings on already existent platforms and also collaboration tools, skill exchange platform, AI algorithm. |
| Business Model | Chiagozie Maduemesi, Faith Okunola | Creating sustainable business strategy aligning with the startup goals as well as defining revenue streams. |
| Market Analysis and Personas | Faith Okunola, Omokhuale Onolemen | -Developing personas for target audience and also analyzing market needs. |
| UseCases | Mese Lee, Shresta Rapol | - Defining user interactions with match making and collaboration tools. |
|  |  | -Creation of flowcharts for document use. |
| Entity Relationship Diagram | Shresta Rapol, David Carter | -Design the database schema users, connections, task and skill exchanging. |
|  |  | -Ensuring scalability for future growth. |
| Class Diagram | Shresta Rapol, Mese Lee | -Mapping key features like match making, tasks, and repositories to class relationships. |
|  |  | -Designing the system object-oriented architecture. |
| Content Plans | Omokhuale Onolemen, Mese Lee | -Creation of content for the platform, including landing page, user profiles and features description. |
|  |  | -Writing community guidelines  and onboarding |
| Protoype Mockups | Omokhuale Onolemen, Mese Lee | -Figma designs |
|  |  | -Creative interactive prototypes to demonstrate navigation and features. |
| Code Development | Shresta Rapol, David Carter, Mese Lee | -Develop front-end and back-end. |
|  |  | -Integration of APIs for AI matchmaking and conferencing. |
| Testing | Mese Lee, Oneal Williams | -Unit, integration and regression testing |
|  |  | -Usability testing and feedbacks. |
| Documentation | Oneal Williams, Mese Lee | -Writing user manuals and onboarding guidelines. |
|  |  | -Create technical documentation for the system (API references, database schema) |

# Preliminary Research

# Brainstorming

# Research – Web Market Analysis

# Description

# Technical Requirements

Personas

# Use Cases

A diagram of a diagram

Description automatically generated

Use Case Description:

|  |  |
| --- | --- |
| **UseCase Name** | **Description** |
| Register/create Profile | Allows users to register on the platform and create a detailed profile, including their skills, goals, and preferences to help match them with others. |
| Provide Mentorship | Enables users to offer their expertise to others by setting up a profile as a mentor, listing their skills and areas of mentorship. |
| Search for Mentors | Users can search for available mentors based on skills, goals, and other preferences to find the right person to guide them. |
| AI Matching/AI\_search | The system uses AI to match users with co-founders, mentors, or collaborators based on their profiles, skills, and goals. |
| Connect with Potential Team Members | Allows users to connect with potential team members after matching, sending collaboration requests that can be accepted or declined. |
| Initiate a Video conference | Users can initiate video calls to discuss projects or collaborate in real-time, facilitating communication regardless of location. |
| Manage Task Board | Users can create and manage task boards for their projects, assigning tasks to collaborators and tracking progress |
| Create Virtual Collaboration Space | Users can create a virtual space to collaborate on projects, including tools like document sharing, code repositories, and task management. |
| Offer Skill Exchange | Users can offer their skills to others in exchange for services (e.g., coding for design), promoting skill-sharing within the platform. |
| Request Skill Exchange | Users can request skill exchanges with others based on their needs, browsing available offers and proposing exchanges. |

# Activity Diagram

A diagram of a process

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# Entities (20 marks)

A screenshot of a computer

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# Content Plans (10 marks)

Home Page

* Hero Section:
  + Headline: "Connect. Collaborate. Innovate."
  + Call to Action: "Start Your Journey"
* Feature Highlights:
  + AI Matchmaking: Explain how AI matches users based on skills, interests, and goals.
  + Virtual Collaboration Space: Showcase the features of the virtual workspace.
  + Skill Exchange: Highlight the benefits of trading skills.
* Testimonials:
  + Quotes from satisfied users.
* Call to Action:
  + Prominent sign-up button.

Sign-Up Page

* Basic Information:
  + Name, email, password
* Profile Creation:
  + Skills, interests, goals
  + Preferred collaboration style (remote, in-person, hybrid)
  + Time zone
* AI Matchmaking Preferences:
  + Ideal co-founder or team member traits
  + Desired skills or expertise

Dashboard

* Personalized Feed:
  + AI-matched potential collaborators
  + Upcoming events and webinars
* Virtual Workspace:
  + Project boards
  + Video conferencing
  + File sharing
  + Code repositories
* Skill Exchange Marketplace:
  + Post offers and requests for skills
  + Browse other users' offers
* Messaging:
  + Direct messaging with other users
  + AI Matchmaking Algorithm
* User Profile Analysis:
  + Extract key information from user profiles (skills, interests, goals, location, time zone)
* Similarity Calculation:
  + Use algorithms like cosine similarity or TF-IDF to measure the similarity between user profiles.
  + Consider factors like shared interests, complementary skills, and geographic proximity.
* Matching Criteria:
  + Prioritize matches based on user preferences and compatibility.
  + Consider factors like project stage, team size, and desired level of collaboration.
* Match Recommendations:
  + Present users with a list of potential matches, along with relevant information about their skills, experience, and availability.

Skill Exchange Platform

* Skill Listings:
  + Users can create listings offering their skills or requesting specific skills.
  + Include details like skill level, availability, and preferred collaboration methods.
* Skill Trading:
  + Users can negotiate and agree on terms for skill exchanges.
  + Implement a system to track and verify completed exchanges.

Additional Features:

* Community Forums:
  + Discussion boards for general topics and specific project discussions.
* Mentorship Program:
  + Connect experienced entrepreneurs with aspiring founders.
* Event Calendar:
  + Promote upcoming tech events, workshops, and hackathons.
* Resource Library:
  + Curated collection of articles, tutorials, and tools.

# Prototypes (20 marks)

# Class Diagram (20 marks)

A diagram of a computer program

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# Implementation - Developing the Agile Plan (20 marks)

# Conclusion

# Team Contributions

|  |  |
| --- | --- |
| **Team Members** | **Content covered** |
| Chiagozie, Maduemesi |  |
| Faith, Okunola | Personas, Descriptions, Web Analysis, Technical Requirement |
| Onolemen, Omokhuale | Forming Development Team, Content plans and prototype. |
| Shresta, Rapol | use cases , ER diagram, Activity diagram, class diagram, Developing Agile Plan excel sheet |

# References