# A2SV Generative AI Hackathon Checkpoint 1

## **Objective**

The purpose of this template is to provide you with a structured format for submitting your progress updates during the hackathon. By using this template, you can ensure that you include all the necessary information in your submissions and make it easier for advisors to evaluate your progress. Checkpoint templates can also help you stay organized and focused on your goals throughout the hackathon.

**Deadline:** September 30, 2023 11:59 PM EAT

## **Instructions**

1. Fill in the relevant details for your project according to the template.
2. Remove section descriptions and examples from the document.
3. Submit your checkpoint on time.

## **Project Title:**

MailQA

## **Team Name:**

Digital Dynamos

## **Team Captain Name:**

## Kevin Kibe

## **Team Members:**

| No. | Name | Email | Phone | Country |
| --- | --- | --- | --- | --- |
| 1. | Kevin Kibe | keviinkibe@gmail.com | +254 721 947 286 | Kenya |
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| 4. |  |  |  |  |
| 5. |  |  |  |  |

## **Project Roadmap Planning:**

In this section, you outline the structured timeline and milestones for your project, guiding your progress over the six-week duration. It serves as a strategic overview of how you will approach project development and achieve your goals within the allocated time frame. You can look at the example structure below to get an idea, but you can also change it to fit your project better. Make sure to break your plan into small steps to make it clear and manageable.

### Week 1: Roadmap Planning and Ideation | Sep 19, 2023 - Sep 27, 2023

* Milestone:
  + Project kickoff and ideate additional features and designs.
  + Project idea refinement
  + Feature prioritization
* Deliverables:
  + Defined project scope, and additional features to v1 prototype.
  + Ideate on core features and designs.
  + First checkpoint.

### Week 2-4: Development and Prototyping | Sep 27, 2023 - Oct 16, 2023

Week 2:

* Milestone:
  + Features to be implemented this week
    - Storing user data and access tokens in a serverless Postgres backend (transitioning from in-memory storage in v1 for the web interface).
    - Integration of a feature allowing users to add multiple Gmail accounts to the web application.
    - Design and development of a Slack app for user interactions within the chat application on Slack.
* Deliverables:
  + Prioritized task list for the week.
  + Assignment of tasks and roles to team members.
  + Functional implementation of the specified features.
  + Codebase for the implemented features.

Week 3:

* Milestone:
  + Features to be implemented this week
    - Redesign of the web interface UI and landing page.
    - Integration of a feature enabling user interactions with data from multiple Gmail accounts via the Slack app.
    - Addition of quick prompt buttons on the web chat interface.
* Deliverables:
  + Prioritized task list for the week.
  + Assignment of tasks and roles to team members.
  + Functional implementation of the specified features.
  + Codebase for the implemented features.

Week 4:

* Milestone:
  + Features to be implemented this week
    - Integration of Outlook email accounts into our web and Slack applications.
    - Design and development of an app with similar functionalities for Teams.
    - Deployment of the web application.
* Deliverables:
  + Prioritized task list for the week.
  + Assignment of tasks and roles to team members.
  + Functional implementation of the specified features.
  + Codebase for the implemented features.

### Week 5: Testing and Refinement | Oct 16, 2023 - Oct 23, 2023

* Milestone: Conduct comprehensive codebase testing and user evaluations.
* Deliverables:
* Identify and resolve any bugs discovered during testing.
* Incorporate and act upon user feedback to enhance the project.

### Week 6: Finalization and Presentation | Oct 23, 2023 - Oct 28, 2023

* Milestone: Finalize the project, and prepare for presentation.
* Deliverables: Complete project features, and create presentation materials. Deployed product

## **Features and Functionality:**

In this section, identify and list the essential and fundamental functionalities of your project that are necessary for its basic operation and purpose. They are the primary elements that define what your product does and provide value to users.

### Core Features:

1. Chat-Based Interface on the web

* Description: A chat-based web application that should allow users to access and interact with their email content. This includes searching for specific emails and summarizing email threads.

1. Multilingual Support

* Description: The platform should support 98 languages, ensuring users from diverse linguistic backgrounds can translate emails into their preferred language..

1. Generative AI Responses

* Description: The platform should have the ability to generate concise responses to emails based on user requests using generative AI, specifically OpenAI models

1. Slack App Integration

* The user should be able to interact with the chat application from a Slack application.

1. Teams App Integration

* The user should be able to interact with the chat application from a Microsoft Teams application.

## **Technology Stack:**

* Frontend: [List technologies, libraries, or frameworks for the frontend implementation.]
  + Example: React (for building the UI), Redux (for state management), Axios (for HTTP requests), Bootstrap (for styling)
* Backend: [List technologies, databases, and frameworks for the backend implementation.]
  + FastAPI: for constructing the web application's API.
  + Python: for the core logic driving the API and for integrating with PostgreSQL and Supabase to store and manage user data.
  + Node.js: Used for the serverless backend, particularly with Supabase, to enhance the scalability and performance of the application.
  + Python Clients: Integrated with the Slack and Teams applications to facilitate seamless communication while leveraging PostgreSQL and Supabase for data storage and retrieval.
* AI Models: [List of AI/ML models and their intended purposes in the project]
  + GPT3.5 and GPT 4 through the OpenAI API
  + Opensource Llama 7b via HuggingFace Hub(experimental)
* Other Tools: [List any other relevant tools or services.]
  + Git(version control),
  + Docker (for containerization),
  + Supabase (for storing user data)
  + Llm.report for Openai API usage report.

## **Dependencies (if applicable):**

## **Data sets:**

* Data Sources: The users themselves

## **APIs:**

* Model Integration: OPenAI API, Llama2 -7b via HuggingFace

## **Challenges, Risks and Mitigation plan:**

* + Challenge 1: Time management.
  + Mitigation Plan: Planning out the whole project and setting strict timelines.

**Note:** We strongly suggest focusing your efforts on refining your project idea and planning during the first week. Use the last week for preparing your presentation and giving your project a final polish. During the weeks in between, concentrate on developing and testing your project.