Project Plan for Bangkit 2022 Product-based Capstone

Time is money. People wanted to do everything without wasting time, especially cooking. People wanted to cook food for themselves but since they have too many activities, buying ingredients at the supermarket is quite time-consuming.

How can we cook food without sacrificing time and energy to buy the ingredients?

Team ID: C22-PX440

Active Team Member:

- **(ML) M2008F0816 - Mutia Wulansari - Universitas Gadjah Mada**
- **(ML) M2281G2427 - Sodo Lanang Bj. Katio - Universitas Negeri Medan**
- **(ML) M2327F2850 - Muhamad Rendi - Universitas Teknologi Yogyakarta**
- **(ML) M2002F0120 - Awwala Nisa Kamila - Institut Teknologi Bandung**
- **(MD) A2172G1704 - Ferius Josewil - Universitas Mikroskil**
- **(CC) C2364J2911 - Jimson Marloanto - Universitas Atma Jaya Makassar**

Inactive Team Member:

- **(CC) C2009F0938 - Ahmad Nur Saifullah - Universitas Gunadarma**

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Final Selected Themes

- Tourism, Creative, and Digital Economy

Title of the Project:

resep.ai, a cookbook app where you can buy the ingredients.

Executive Summary/Abstract:

In this era, time is a scarce resource for people. People wanted to do something without wasting too much time, especially cooking. The problem is that buying ingredients for cooking takes too much time. They have to think about what they need to cook, go to the supermarket, and then spend time walking around to find the ingredients they need. The supermarket is sometimes too big for us because there is a possibility that people get overwhelmed by choices on what ingredients to pick. This is quite a problem for people with such a busy lifestyle who want to cook food by themselves. How can we cook food without sacrificing time and energy to buy the ingredients?

resep.ai provides recipes around the world and we can buy all the ingredients of the recipe in one click. We want to create an application that provides food recipes that can be used to buy ingredients based on its recipes via online means. By utilizing machine learning, this application will provide recipe recommendations and implement an easy-to-use application design.

How did your team come up with this project?

Based on our observation, people wanted to cook by themselves. But because of their time-consuming and busy activities, they never started to shop for cooking in the first place. They also have a hard time choosing what to cook. We want to solve this problem by creating an application where we provide recipes and you can automatically buy its ingredients online.

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Project Scope & Deliverables:

Date	Scope	PIC	Deliverables
09/05	Collecting datasets	Machine Learning Team	Well-labeled images and text.
	Setting up Cloud Environment	Cloud Computing Team	Ready GCP project and invite members
	Design UI	Mobile Development Team	User Research
10/05	Collecting datasets.	Machine Learning Team	Well-labeled images and text.
	Setting up Cloud Environment	Cloud Computing Team	Role and rules permission
	Design UI	Mobile Development Team	Wireframing
11/05	Collecting datasets.	Machine Learning Team	Well-labeled images and text.
	Prepare Storage	Cloud Computing Team	Ready storage for Machine Learning datasets
	Design UI	Mobile	Visual design

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		Development Team	
12/05	Collecting datasets.	Machine Learning Team	Well-labeled images and text.
	Prepare Database	Cloud Computing Team	Ready Database for user account
	Design UI	Mobile Development Team	Convert design to code
13/05	Collecting datasets.	Machine Learning Team	Well-labeled images and text.
	Design UI	Mobile Development Team	Convert design to code
14/05	Doing research and extracting the features	Machine Learning Team	List of features that can be used in training
	Design UI	Mobile Development Team	Convert design to code
15/05	Doing research and extracting the features	Machine Learning Team	Pre-processed data from features of collected image and text
	Design UI	Mobile	Finishing Convert

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		Development Team	design to code
16/05	Doing research and extracting the features	Machine Learning Team	Pre-processed data from features of collected image and text.
	Login synchronization	Mobile Development Team	Login logic with database ready
17/05	Determining neural network architecture	Machine Learning Team	Architecture choices from any resources
	Upload Dataset to Database	Cloud Computing Team	All Dataset uploaded in Cloud Database
18/05	Implementing the neural network architecture (Data training and validating)	Machine Learning Team	Experiment
	Create login and register activity	Mobile Development Team	Login and register logic
19/05	Implementing the neural network architecture (Data training and validating)	Machine Learning Team	Experiment
	Implement feature most liked recipe	Mobile Development Team	Logic to showing the most liked recipe

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20/05	Implementing the neural network architecture (Data training and validating)	Machine Learning Team	Experiment
	Implement feature to identify recipe by image	Mobile Development Team	Logic to implement the feature
21/05	Implementing the neural network architecture (Data training and validating)	Machine Learning Team	Experiment
	Implement feature to identify recipe by image	Mobile Development Team	Logic to implement the feature
22/05	Implementing the neural network architecture (Data training and validating)	Machine Learning Team	Experiment
	Create logic for cart activity	Mobile Development Team	Logic for cart activity
23/05	Implementing the neural network architecture (Data training and validating)	Machine Learning Team	Experiment
	Create logic for favorite and profile activity	Mobile Development Team	Logic for favorite and profile activity
24/05	Implementing the neural network	Machine Learning	Experiment

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	architecture (Data training and validating)	Team	
	Create dummy database	Mobile Development Team	Processing dummy database
25/05	Implementing the neural network architecture (Data training and validating)	Machine Learning Team	Model for food detection and NLP
	Dummy Database	Mobile Development Team	Finalizing dummy database
26/05	Try to deploy in cloud	Machine Learning - Cloud Computing Team	Ready-to-apply in android
	Using database from cloud	Mobile Development Team	Ready-to-test application
27/05	Testing with real people	All team	Evaluation from real-people test
28/05	Evaluate the model	Machine Learning Team	Better metrics on real test
	Evaluate UX	Mobile Development Team	Redesign the UI and the features for better Experience

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29/05	Evaluate the model	Machine Learning Team	Better metrics on real test
	Evaluate UX	Mobile Development Team	Redesign the UI and the features for better Experience
30/05	Evaluate the model	Machine Learning Team	Better metrics on real test
	Evaluate UX	Mobile Development Team	Redesign the UI and the features for better Experience
31/05	Evaluate the model	Machine Learning Team	Better metrics on real test
	Evaluate UX	Mobile Development Team	Finalize design UI and the features for better Experience
01/06	Deploy in cloud	Machine Learning - Cloud Computing Team	Final deliverables
	Final checking	All team	
02/06	Working on final deliverables	All team	

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03/06	Working on final deliverables	All team	
04/06	Working on final deliverables	All team	
05/06	Working on final deliverables	All team	
06/06	Working on final deliverables	All team	
07/06	Working on final deliverables	All team	
08/06	Working on final deliverables	All team	
09/06	Working on final deliverables	All team	
10/06	Working on final deliverables	All team	

Project Schedule:

Task	Week 1			Week 2			Week 3			Week 4		
I. Planning												
Project Planning												
Set Environment												
II. Research												
Research												
Collecting dataset												
III. Design												

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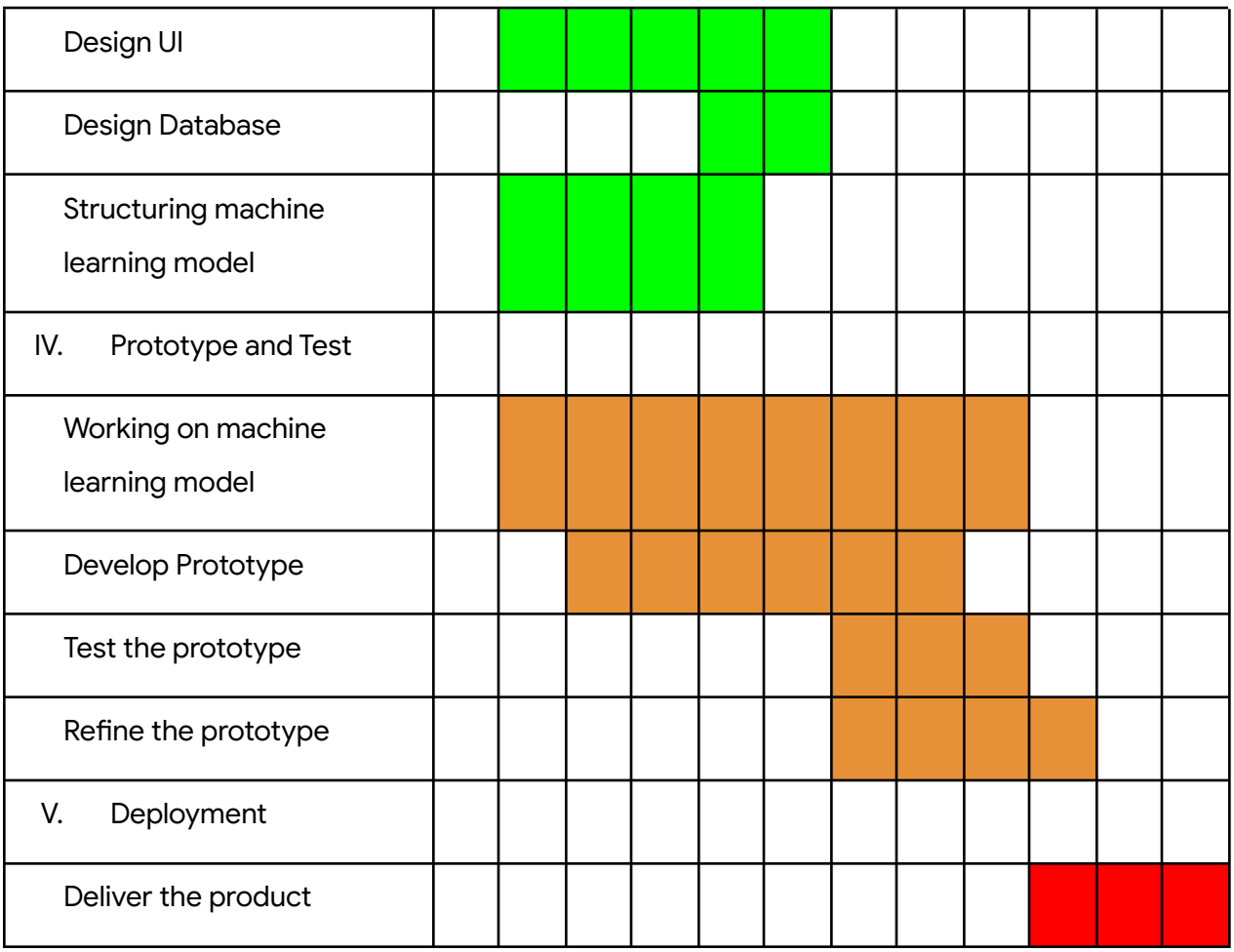

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Based on your team's knowledge, what tools/IDE/Library and resources that your team will use to solve the problem?

- Android Studio,
- Figma,
- Retrofit,
- Visual Studio Code,
- Tensorflow Library (possibly using TFLite),
- Google Compute Engine,
- Cloud Storage

Based on your knowledge and explorations, what will your team need support for?

- Cloud Storage,
- AI Platform,
- Mentor for Tech - Android,
- Mentor for Tech - Cloud/Web/Backend/Frontend,
- Mentor for Tech - Machine Learning/Data/AI,
- Mentor for Tech - UI & UX,
- Mentor for Business/Startup,
- Mentor for Theme / Subject Matter Expert

Based on your knowledge and explorations, tell us the Machine Learning Part of your capstone?

- Searching recipes using reverse image search using image classification

We will be trying to use TFLite as our tool to deploy our model.

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Based on your knowledge and explorations, tell us the Mobile Development Part of your capstone?

- Designing accessible UI/UX
- User Flow
- User role system
- Implementing Machine Learning and Cloud Computing aspect

Based on your knowledge and explorations, tell us the Cloud/Web/Frontend/Backend Part of your capstone?

- APIs to integrate database and application
- Creating a database to store all data related to the application.

Based on your team's planning, is there any identifiable potential Risk or Issue related to your project?

- Not enough dataset required for doing model training and testing
- Application or model contains too much error
- Not enough time to develop the application
- Library or third parties can't be used

Any other notes/remarks we should consider on your team's application

- This is our first big project, so we're trying our best to finish it even though we still lack experience.