

I P M A N

IS480 Project Proposal
KOPIKaki
IPMAN

V 2.0
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Team Members:

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- Jeremy ONG Tee Seng jeremyong.2014@sis.smu.edu.sg – Front-end Developer, Scrum Team
- Keefe TAN Zhi Yang keefetan.2014@sis.smu.edu.sg – Back-end Developer, Scrum Team

Faculty Supervisor:

- Benjamin GAN

Sponsor: HookCoffee

Hook Coffee – Trading name of Giveback Coffee Co. Pte. Ltd. (Co. Reg. No. 201536451G)

- Ernest Ting, Co-Founder ernest@hookcoffee.com.sg
- Faye Sit, Co-Founder faye@hookcoffee.com.sg

1.2 Project Overview

1.1 Project Description:

We will be building a full-fledged web application system for Hook Coffee's unique subscriber business model. This web application, which includes an improvised order, inventory and customer management system, allows opportunities to optimize business processes by providing targeted analytics, through demand projection. The X-Factor that our team is aiming for is to produce a full-fledged live working system that will be used by HookCoffee and supported and improved by us over the semester - providing measureable business results by effectively cutting wastage of roasted coffee beans (caused by lack of knowledge of future demand) by 10%.

1.2 Motivation:

At present, Hook Coffee utilizes online freelance services to create, maintain and improve their business site. As interaction with customers is mostly online, it is paramount that the web service infrastructure remains stable. However, while this was an effective short-term strategy, they soon found out that the code was not changeable, as they had difficulties adding new features to their existing application. As a result, the freelancer had increasing difficulty trying to improve the system. It came to a point where additional requests for improvement by the cofounding team could not be fulfilled. While the administrative dashboard was usable, it was barebones and the cofounding team was frustrated with it, but could not ask the freelancer to further improve it. There is a need to revamp the order management system so that they could scale their product out to take in many more orders, and hence, the inception of this project.

1.3 Stakeholders:

Sponsor	Ernest and Faye are the co-founders of their startup, HookCoffee, incubated at SMU's very own IIE. They are seeking help to build a usable order management system for managing their unique subscription based business.
User	The main users would be the sponsors themselves as well as customers of Hook Coffee. However, we will be integrating new components on top of their existing website (such as a Facebook login) to improve the user experience and collect more data on the backend behalf of the sponsor.
Advisors Practitioners Mentors	Russian freelance Python Developer – the freelancer who did the first version together with the sponsors. We will communicate with him how the code and data is stored so we are able to utilize the data available for analysis.

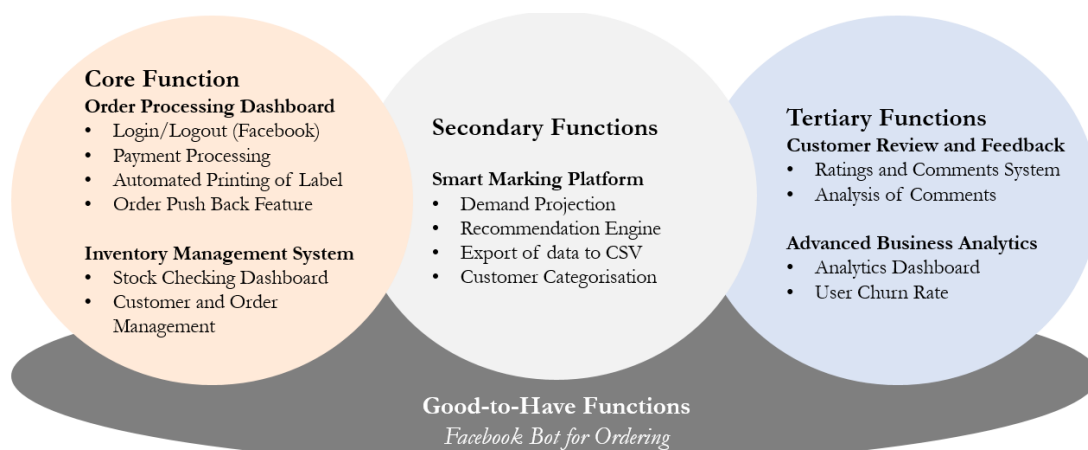
1.4 Deliverables:

Outcomes: Deliverables for each iteration that are usable by the sponsor.

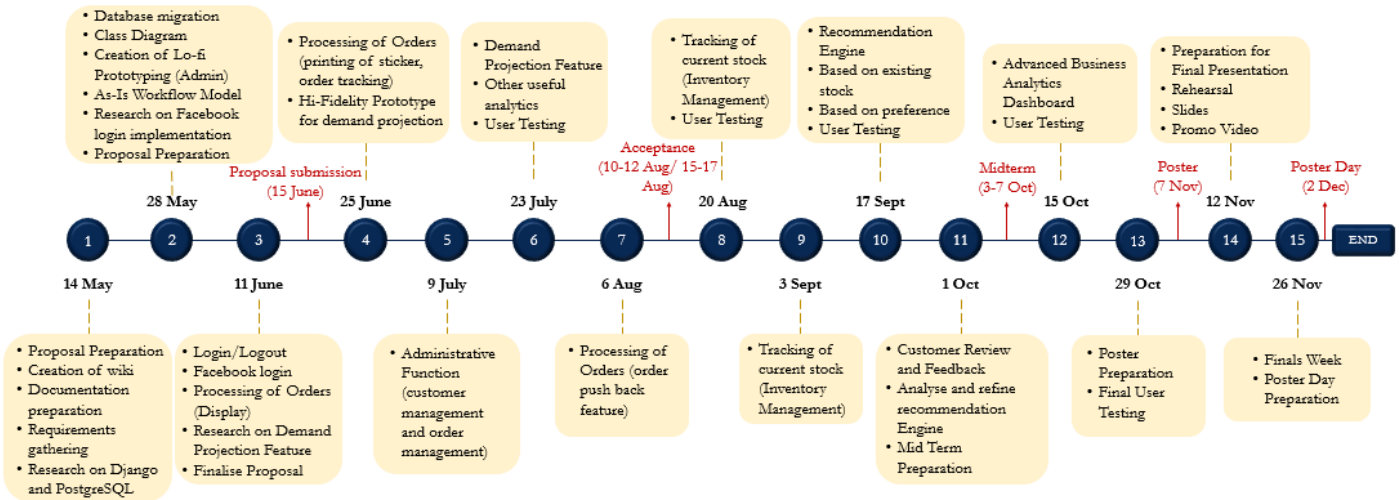
Value Statement: A huge improvement over their current system, streamlined to how their business works (in terms of requirements) as they have tailor made IT systems, for example an Inventory Management System in place of using memory to keep track of stock. They would also have the ability to forecast how much coffee beans of each type to order and roast, to reduce wastage and prevent overstocking of coffee beans.

1.5 Scope:

1.5.1 Functionalities



2. Project Plan



2.2 Risks:

We will need to analyze the limited documentation of the current system and understand the raw code to be able to migrate to a new system that is usable by the business. We will ensure our revamped system aligns with the business by meeting our sponsor every fortnight.

	LIKELIHOOD		
IMPACT	Low	Medium	High
High	B	A	A
Medium	C	B	A
Low	C	C	B

Table 1: Category of Risks

Risk Type	Risk Event	Likelihood	Impact	Category	Mitigation
Technical	Team is unfamiliar with project technologies such as PostgreSQL, ReactJS, Django and etc.	High	Medium	A	Team members will research and discuss the knowledge learnt as a team.
Technical	Client is unable to provide server during development phase.	Medium	Medium	B	Team will purchase the server
Project Management	Project will be delayed due to wrong estimation.	Low	Medium	C	Constantly review project schedule and the time needed to complete tasks
Client Management	There may be changes in our client requirements which results in drastic changes to our schedule.	Medium	High	A	Team will meet clients fortnightly to ensure that we produce based on our client's requirements

Table 2: Likelihood of Possible Risk and Mitigation Plan

2.3 Resource and reference:

We will be doing research on how to forecast demand for their business. Administrative content replacement will be implemented in Django Framework with React (open-source JS library) for frontend and PostgreSQL for database. We will get our reference from these books to level up our knowledge:

- Developer's Library book, **Python Web Development with Django®** by Jeff Forcier, Paul Bissex, Wesley Chun
- **PostgreSQL** by PACKIT Publishing and **PostgreSQL Up & Running** by O'REILLY
- **Essential Scrum** by Kenneth S. Rubin
- **Test-Driven Development with Python** by Harry Percival