IS480 Project Proposal
SmartHawker
HungryMen

Team Vision:
- To take on challenges that feeds our desires to strive for the best

Team Members:
- Goh Gui Xiang Wendy (wendy.goh.2014@sis.smu.edu.sg) - Project Manager and Front-End Developer
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- Cheng Chingyi (cycheng.2014@sis.smu.edu.sg) - Quality Assurance and Business Analyst
- Gao Min Mell (min.gao.2014@sis.smu.edu.sg) - Front-End Developer
- Chua Weilun (weilun.chua.2014@sis.smu.edu.sg) - Back-End Developer and Back/Front End Integration

Sponsor: SmartHawker
- Edmund Foo (edmund@smarthawker.com)
- Marcus Lee (marcus@smarthawker.com)
- Tan Boon Teck (boonteck@smarthawker.com)

Project Overview:
- Project Description

SmartHawker iOS mobile application aims to help hawkers in Singapore have access to a free and easy-to-use financial planning tool, so that they can better monitor their business finances, without having to use over-complicated software systems. Local, owner-operated single stall hawkers are the primary target group for this mobile application.
- Current Issues

Hawkers in Singapore often rely on manual or semi-manual bookkeeping methods to keep track of their financial records. This is a potential source of problems for them as the lack of accuracy and consistency associated with manual recording methods may lead to incorrect reporting of financial performance, especially when it comes to income tax reporting at the end of each financial year. Hawkers also often do not perform regular cost-benefit analyses as part of their financial decision makings. Instead, they rely on their 'experience' or 'gut feel' to make such decisions. Hawkers are also usually small sole proprietors and do not typically use POS (Point-of-Sale) systems to log their daily records and track their financials performance.
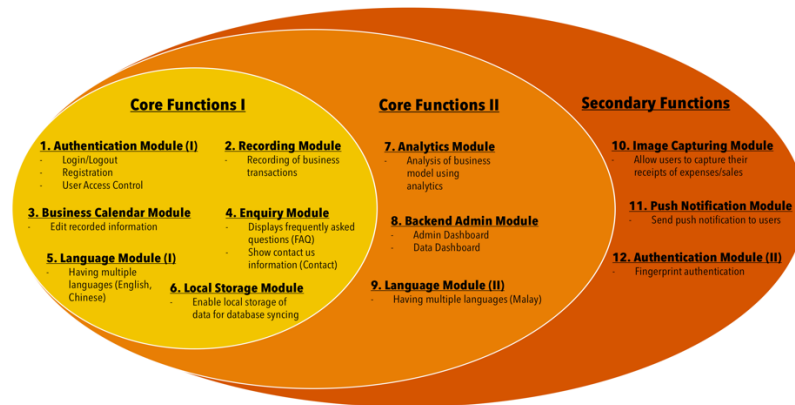
Stakeholders:

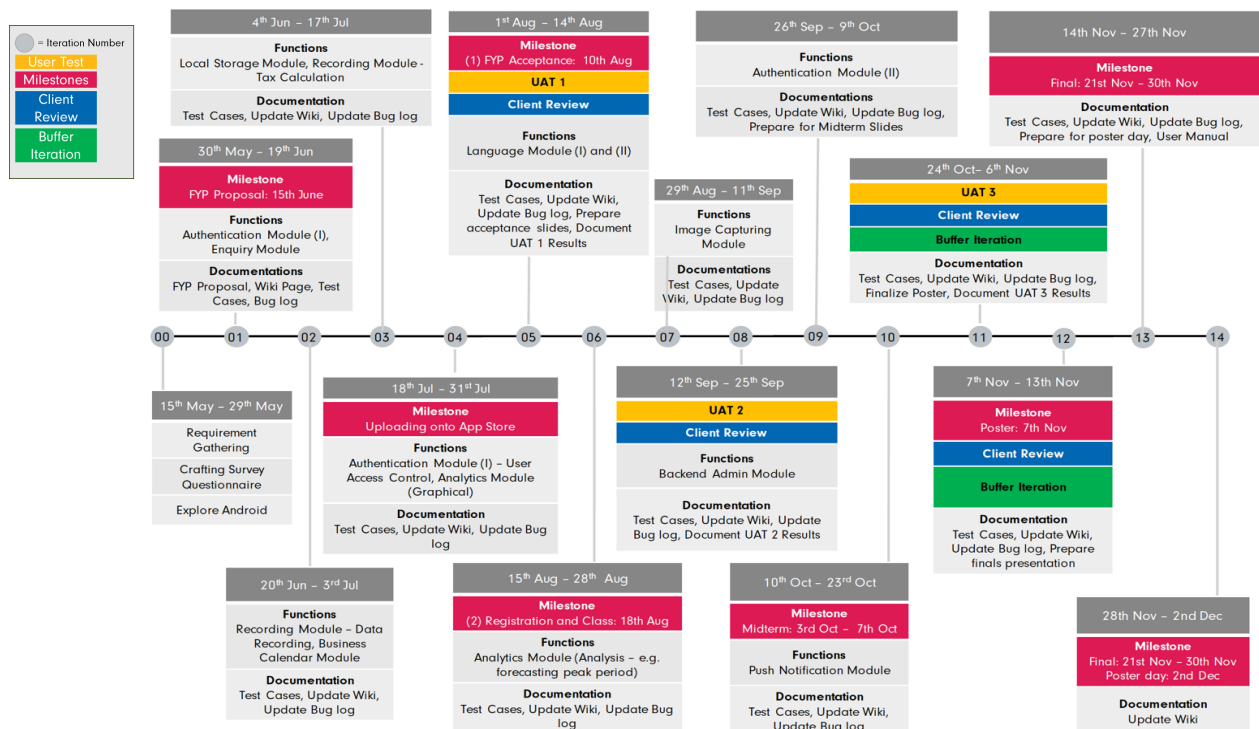| Sponsor	Edmund Foo, Marcus Lee, Tan Boon Teck
Users	Hawkers

Deliverables:
To come up with an iOS mobile application to help hawkers improve their record keeping and business decision making, where their financial information is securely stored and easily accessible for current and future reference, e.g. income tax filing.

Scope:

Core Functions I

1. Authentication Module (I)
- Login/Logout
- Registration
- User Access Control

2. Recording Module
- Recording of business transactions

3. Business Calendar Module
- Edit recorded information

4. Enquiry Module
- Displays frequently asked questions (FAQ)
- Show contact us information (Contact)

5. Language Module (I)
- Having multiple languages (English, Chinese)

6. Local Storage Module
- Enable local storage of data for database syncing

Core Functions II

7. Analytics Module
- Analysis of business model using analytics

8. Backend Admin Module
- Admin Dashboard
- Data Dashboard

9. Language Module (II)
- Having multiple languages (Malay)

Secondary Functions

10. Image Capturing Module
- Allow users to capture their receipts of expenses/sales

11. Push Notification Module
- Send push notification to users

12. Authentication Module (II)
- Fingerprint authentication

Project Plan:

Legend:
- ⬤ = Iteration Number
- User Test
- Milestones
- Client Review
- Buffer Iteration

15th May – 29th May
- Requirement Gathering
- Crafting Survey Questionnaire
- Explore Android

30th May – 19th Jun
- Milestone: FYP Proposal: 15th June
- Functions: Authentication Module (I), Enquiry Module
- Documentations: FYP Proposal, Wiki Page, Test Cases, Bug log

20th Jun – 3rd Jul
- Functions: Recording Module – Data Recording, Business Calendar Module
- Documentation: Test Cases, Update Wiki, Update Bug log

4th Jun – 17th Jul
- Functions: Local Storage Module, Recording Module - Tax Calculation
- Documentation: Test Cases, Update Wiki, Update Bug log

18th Jul – 31st Jul
- Milestone: Uploading onto App Store
- Functions: Authentication Module (I) – User Access Control, Analytics Module (Graphical)
- Documentation: Test Cases, Update Wiki, Update Bug log

1st Aug – 14th Aug
- Milestone: (1) FYP Acceptance: 10th Aug
- UAT 1
- Client Review
- Functions: Language Module (I) and (II)
- Documentation: Test Cases, Update Wiki, Update Bug log, Prepare acceptance slides, Document UAT 1 Results

15th Aug – 28th Aug
- Milestone: (2) Registration and Class: 18th Aug
- Functions: Analytics Module (Analysis – e.g. forecasting peak period)
- Documentation: Test Cases, Update Wiki, Update Bug log

29th Aug – 11th Sep
- Functions: Image Capturing Module
- Documentations: Test Cases, Update Wiki, Update Bug log

12th Sep – 25th Sep
- UAT 2
- Client Review
- Functions: Backend Admin Module
- Documentation: Test Cases, Update Wiki, Update Bug log, Document UAT 2 Results

26th Sep – 9th Oct
- Functions: Authentication Module (II)
- Documentations: Test Cases, Update Wiki, Update Bug log, Prepare for Midterm Slides

10th Oct – 23rd Oct
- Milestone: Midterm: 3rd Oct – 7th Oct
- Functions: Push Notification Module
- Documentation: Test Cases, Update Wiki, Update Bug log

24th Oct – 6th Nov
- UAT 3
- Client Review
- Buffer Iteration
- Documentation: Test Cases, Update Wiki, Update Bug log, Finalize Poster, Document UAT 3 Results

7th Nov – 13th Nov
- Milestone: Poster: 7th Nov
- Client Review
- Buffer Iteration
- Documentation: Test Cases, Update Wiki, Update Bug log, Prepare finals presentation

14th Nov – 27th Nov
- Milestone: Final: 21st Nov – 30th Nov
- Documentation: Test Cases, Update Wiki, Update Bug log, Prepare for poster day, User Manual

28th Nov – 2nd Dec
- Milestone: Final: 21st Nov – 30th Nov, Poster day: 2nd Dec
- Documentation: Update Wiki

Iteration Numbers: 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14

Risks and Mitigations:

Risk	Mitigation
1. Potential lack of user testing due to insufficient testers	1. Early management planning and sourcing of users for testing
2. Insufficient collection of data, due to testers not using the mobile application as often as possible	2. Active monitoring and reminding of users
3. New programming environment for iOS mobile application	3. Actively learn, research and share programming knowledge with team
4. Potential increase in scope of project	4. Constant review of project scope and constant communication with client to manage expectations of mobile application development

Resource and Reference:

HungryMen will be building our SmartHawker iOS mobile application using Swift, with Xcode as the Integrated Development Environment (IDE). Parse will be the database used for storing of data online and GitHub would be used for version control.