Project Status Report

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1 Project Description

Laser Mate is a £5-billion-yearly-profit software empire with the primary goal to enable restaurant customers to order and pay for food and drinks using a mobile phone.

The unique feature of the restaurant ordering platform is the lower waitering cost (75%) and transaction fee (1%). Restaurants that employ two waiters will attract a saving of half the waitering cost - £16,800 each year. Using this app, restaurant waiters will save around 50% time and effort as they will no longer need to take, record, and deliver orders, and also give and take payment. Restaurant owners will also save additional workloads on dealing with staff rota, training and supervision and salary payment.

Another prospect of the mobile web comes from the transaction fees. Online web payment (0.39%+2p per transaction) is more cost-effective than card machine payment (1.75% per transaction).

The cost of business deployment and ongoing scaling is significantly low compared to the revenue potential. The operation of the company is mainly composed of the software, post advertisement and the menu registration and update. Given that it should be a partially deployable software by April 21, the cost of the software is the continuous development and maintenance cost - which could be around £100,000 per year. Since post advertisement may only take a few days, assuming that we have one employee who registers 10 restaurants a day, we will reach 3650 restaurants (£25 million) in a year at a low cost. Another competitive edge of this business model is the fact that we do not need to spend much time to maintain the operation of each restaurant after our clients have signed up to the system - we only need to update their menus and answer their enquiries once in a while.

The projected profit estimation is composed of the service charge and the difference in transaction fee. Upon taking 1% service charge per customer transaction, we will obtain £4,000 for each £400,000 restaurant sit-in annual revenue. The cost, £4,000, is reasonable compared to the waitering cost of around £16,800. Furthermore, the fact that online web transaction is 1% lower than card machine transaction means that our business will take another 1% revenue. Accounting this 1% service charge with the difference in transaction cost (1%), we will have 2% revenue for each restaurant (£8,000). Consequently, assuming that we will earn £7,000 for each restaurant (due to tax and other negligible costs), given that there are around 1.5 million restaurants in the EU and U.S, it is estimated that with 50% market penetration, we will have a profit of £5 billion per year (750,000 restaurants x £7,000).

The automated nature of this software product demonstrates a prosperous future for all as we will then have a larger proportion of workforce redirecting to jobs that will matter more.

2 Progress Report

- Analyse software requirements for each stakeholder (customers, chefs, waiters, owners, company employees, company CEO) using value proposition canvas and user stories. See Wiki ->Unofficial Dissertation ->Dissertation 14Dec20 v7.
- Write business executive blueprints, design principles, software development process, evaluation techniques, software testing and software coding manuel.
- Draft and evaluate product paper prototype for the minimum viable product. See wiki ->Unofficial Dissertation ->Dissertation 18Oct20. See wiki ->Supervisor Meeting PowerPoint ->Meeting 23Oct20.
- Write digital wireframe using Adobe XD. See Wiki ->Digital Prototype 9Dec20 v1.
- Software Development: Login functionality. Front-end design to code. Page interaction. QR code generation. Database construction. Edit, create and delete data using Django rest framework. Data rendering based on the unique restaurant id, computed serving times and current time.

3 Project Planning

The schedule for the second semester is to work logically through different aspects of the dissertation and the coding. There is no a hard deadline for each task. Below is the dissertation outline.

- Project Proposal: Describe the idea and why it will work; the cost of business deployment and ongoing scaling; and the annual profit estimation.
- Final Software Product: Showcase the final product and have a demonstration video via QR code links.
- Business Executive Blueprint: (1) Pre-Launch Groundwork - describe the legal and accounting responsibilities; software deployment and testing; and user support manual via YouTube tutorial channel. (2) Software Product Marketing & Commercialisation. (3) Business Scaling - describe further legal and accounting consultations; business strategic consultations; human resource organisations; and business execution.
- Design Principles: Captivating Design; Responsive Design; System for Collaboration CSCW; Dynamic Information Management; Minimal Effort and Completion Time Design; Ethical Design; Multimodel Interaction; Inclusive Design; System Feedback Mechanism; Design for Automation and Infinity; Design for Hackers; Worse-Case Scenario Design; Design for All Eventuality; Literature Review.
- Software Requirements Specification: User Stories; MOSCOW.
- Software Development Process: (1) Product Conceptualisation, Prototyping, Evaluations and Testing; (2) Software Coding, Programming Documentations and Testing; (3) Software Deployment, Evaluation and Testing.

- Software Coding Manual: (1) Pre-Programming Strategy - Platform Considerations, Drafting Overall Coding Workflow and Coding Tutorials & Documentation Searching; (2) Coding Executions and Documentations - development pending.
- Evaluation Techniques: (1) Paper Prototype Evaluations - Semi-Structured Interviews with Questionnaires; (2) Digital Wireframe Evaluations - Online Heuristic Evaluations and Semi-Structured Interviews with Questionnaires; (3) Final Product Evaluations - Semi-Structured Interviews with Questionnaires.
- Software Testing: Business Requirement Testing; User Requirement Testing; Error Testing; Software Feature Testing; Interface and Service Integration Testing; Performance Testing.
- Software Deployment
- User Support Manuel via YouTube Tutorial Channel
- Conclusion
- Bibliography
- Appendix: Digital Prototype; Software Coding Templates Documentations; Software Testing Templates Documentations; Evaluations; Systematic Requirements Analysis; Value Proposition Canvas; Paper Prototype.

4 Problems and Risks

- Legal and accountancy compliance. Mitigation: hire a legal and accountancy advisor pre-launch.
- Software security. Mitigation: crowd source a security company pre-launch.
- Integrity for payment portal. Ensure that the financial company is registered under the Financial Conduct Authority (FCA).

5 Ethics

- Write ethical consent form before the second phase evaluation to protect the rights of participants.
- Consider ethical designs by establishing terms and conditions, legal policies, and staff health and safety.
- Deploying adequate software security measures for payment portal and hackers.
- Consider informed payment processing through system notifications.