Table 1: Revision History

Date	**Developer(s)**	**Change**
2016-09-30	Elton Schiott	First revision of document
...	...	...

SE 3XA3: Development Plan
Title of Project

Team 05, Q-aRt QTs
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Emilio Hajj hajje
Liam Duncan duncanla

This is the development plan for the project.

1 Team Meeting Plan

The team will meet on Tuesdays and Fridays for approximately one hour at 2:30 PM. These meetings will occur regularly every week on the first floor of Thode library. A meeting chair will be assigned ahead of time for each meeting in order to keep discussions on track and make sure all issues are addressed. A few rules will be established such as follows: a consensual approval of minutes (longevity of meeting), a summary report from each member, specific task assignments based on skill, a recap of unfinished business and an open-discussion of new problems to entail.

2 Team Communication Plan

Tasks will be assigned in meetings. Other than in meetings the team will communicate mainly through 2 means. The first is Git issue tracking, which will be used to communicate the status of documents and files that are currently being worked on. Other communication, such as organizing meetings, changing plans, and more urgent messages will be relayed through a group on Facebook.

3 Team Member Roles

There is no team leader assigned for the group, however one team member will be assigned the role of chair for each meeting and this responsibility will cycle through the group members. Notes will be taken at each meeting by the chair.

Elton Schiott will take the lead role in documentation using LaTeX and review of past milestones. Emilio Hajj will maintain the Gantt chart and make sure tasks are completed on time. Liam Duncan will focus on the implementation of the project. However, each member will be assigned tasks and contribute to all areas of the project.

4 Git Workflow Plan

Git centralized workflow was selected as the method for the development of the project. Issue tracking will be used for task distribution and control. Labels will be applied to the issues as well as for completed documents to signify priority, category or anything else that can be found useful.

5 Proof of Concept Demonstration Plan

The proof of concept will be a simple implementation of a QR encoder. The input will be an alphanumeric string and the program will generate a standard QR code that, when scanned will read as the input string. This is the most difficult part of the implementation, as the artistic representations of QR codes will be generated using a similar method, and the process has few neccesary inputs and functions, thus will not be difficult to implement.

The main risk in the redevelopment of this project is that the algorithms used to generate the QR code are difficult to understand and implement. If the proof of concept is able to successfully generate correct, functional QR codes, this will demonstrate the required knowledge to fully develop the encoder. This will include the artistic QR code generator functionality. Testing may also be a concern, since it will not be easy to unit test the QR codes that are generated for correctness. Comparing the binary strings generated by the group's implementations may be tested against those created by the original implementation or other QR code encoding software to verify that the software functions correctly.

6 Technology

The programming language to be used for the development of the software will be Python as the original project uses this language and all group members are comfortable with its use. The IDE of choice will be Geany and documentation generation will be done using Sphinx. In regard of testing, various mobile applications will be used to verify the QR output (primarily Snapchat and 'QR Code Reader'). Unittest will be used for framework testing.

7 Coding Style

Google's Python style guide will be used for any Python code in the project.

8 Project Schedule

Details about the project can be found in the Gantt chart.

9 Project Review

This project was set in order to re-implement an open source QR Code Generator making it more user-friendly and compatible. In terms of requirements for the design specifications and the overall set goals throughout this project, we as a team feel like we've accomplished and learned a lot throughout this term. We had a few fall-outs and problems committing in the very beginning. Partly caused by lack of issue tracking, focus and communication. We've grown a lot in terms of time management and commitment as a group and as individuals making this project a very valuable lesson. For projects to come, we hope to carry these new-found qualities and take on bigger and more complicated milestones.

Concerning the technical skills, we come out of this project as better and more proficient coders in python as well as finer understating of QR codes, character encoding and data transmission.