6. Technical process plans

All programming based task timeline and strategies will be recorded in this section. This is a tentative model, and will be updated as the project progresses. The covered topics are process model, methods and techniques, as well as the infrastructure plan and plan for product acceptance.

6.1 Process model

Below is the proposed timeline of the project and appropriate tasks:

|  |  |  |
| --- | --- | --- |
| Phase | Time range | Goals |
| Planning | 2017/09/11 – 2017/09/21 | * Develop strategy for project progression * Assign teams * Review existing code from previous term |
| Requirements | 2017/09/21 – 2017/09/27 | * Document project requirements * Familiarization with path of execution * Create documents (SPMP, Requirements) * Front end prototype |
| Specification | 2017/09/27 – 2017/10/01 | * Analyse user end requirements * Finalize project timeline |
| Design | 201/10/01 – 2017/10/11 | * UML diagrams * Finalize frontend * Finalize backend structure |
| Implementation | 2017/10/11 – 2017/11/18 | * Build functional prototype * Upload to test server * Gather client feedback * Ensure front end flow |
| Integration | 2017/11/18 – 2017/12/01 | * Assemble project * Complete documentation * Focus group testing |

Roles and tasks may be shifted to accommodate the student calendar and any unforeseen events. Team members will self document and self report their progress and issues they may encounter during development. There will be weekly meeting with group leaders to summarize the position of respective sections. Any task not completed during assigned time will be either shifted to the next phase or teams will be rebalanced for as per discussion of each case.

6.2 Methods, tools, and techniques

The project is split up into two sections: front end and back end. They will be worked on within separate teams and stored in a Github repository. The leader of each section will internally work out the preferred strategy and framework.

Front end (detailed description to be added as design phase approaches)

* JavaScript
* HTML/CSS

Back end (detailed description to be added as design phase approaches)

* Python
* SQL (?)

Additional tools used: Google Docs, Dropbox, MS Word.

6.3 Infrastructure plan

The software is a companion app to the BrightSpace API. Prototypes at each checkpoint will also be uploaded to the test server, [www.somethingdumb.ca](http://www.somethingdumb.ca), and transferred to Bohr upon completion. Additional resources may include but not limited to printers, drafting materials, and other University resources.

6.4 Product acceptance plan

Working prototypes will be presented to the client at key intervals for assessment along with progress documentation. The client will interact with prototypes on a server, which will simulate the final product. Internal beta tests will also take place after each completed unit.

7. Supporting process plan

7.1 Configuration management plan

Not applicable.

7.2 Verification and validation plan

This section will be updated accordingly through out project lifecycle.

7.3 Documentation plan

A separate Requirements Documentation is being developed.

The documents that will be maintained and controlled are as follows:

* Design document
* Tickets log
* QA log
* Testing log
* Client feedback
* Interval reviews

7.4 Quality assurance plan

A QA team will be dedicated to each stage of development. Members may be interchangeably assigned to tasks depending on the needs of unique cases. Multistage testing will take place, accompanied with unit testing logs.

7.5 Reviews and audit plan

The team will be distributed prototypes that will be unit tested prior to client presentation. The team will also peer review code within their sections and resolve any immediate bugs, along with proper documentation. All features will be presented to the client for acceptance testing before finalization.

7.6 Problem resolution plan

This section will be updated by Monday, September 25, 2017.

7.7 Subcontractor management plans

Not applicable.

7.8 Process improvement plan

This section would be updated as project progresses.