



CMPT 275-4 E100 – Software Engineering I
Fall 2017

Assignment 1 (10%) – Project Plan

“eAccessibilityAssistant” Application

Deliverables	Due	Time
Project plan + project website	Wed Sept 27, 2017	11:55PM

**PLEASE NOTE THE DUE DATE AND TIME.
LATE SUBMISSION WILL NOT BE ACCEPTED.
SUBMIT DOCUMENTS TO BOTH CANVAS AND TURITIN.
INCOMPLETE SUBMISSION WILL RESULT IN PENALTY.**

I. Project Statement:

The theme for fall 2017 semester is as follows:

The goal of the project is to develop a software tool to help people with either Parkinson¹, Alzheimer² or Autism³ diseases. This software application is required to run on an iOS (iPhone, iPod/Touch, or iPad hardware) device.

For the semester long project, student will need to investigate, design and implement a prototype (an iOS application) that helps to achieve the above stated theme. Team can think along the line of improving personal health, fitness, or quality of life.

Team is required to do research for the particular diseases that choose. In order to justify their claims in the proposal, literature from the academic and medical community will be required. Do not rely only on information on the web, a trip to the library and talk to a librarian may yield tremendous amount of useful information.

N.B.:

1. When evaluation an application, I am looking for usefulness, innovation, creativity, correctness, functional and simple interface.... Let your imagination run wild!
2. Instructor reserve the right to approve and assign the particular topic to the group if deemed necessary.

¹ See website for Parkinson Canada

http://www.parkinson.ca/site/c.kgLNiWODKpF/b.5184077/k.CDD1/What_is_Parkinsons.htm

² See website for Alzheimer Society of Canada <http://www.alzheimer.ca/en>

³ See Autism Society of Canada <https://autismcanada.org/about-us/one-strong-voice/autism-society-canada/>

II. Project Requirements:

Key components that the project must include are:

- a) **Data Input:** Mechanism of input, manual or read a dataset from a file, or from a web site (e.g. User entered data, data from other sensors, RSS feeds)
- b) **Archiving:** Some of the information will be saved in an archive form. For example: SQL database (e.g., MySQL), flat file, or an online data storage (search the Web)
- c) **Analysis:** The application will in some way perform analysis function to the data collected. For example, data search (discovering specific services/products among those available), sorting, regression analysis, other statistical analysis, etc.
- d) **Display:** Visualization of the analysis results (perhaps using graphs and charts.)
- e) **Network components:** The system must have components that are accessible over the Web, using a web browser or a specialized application client (e.g. Wi-Fi and cellular network connectivity)
- f) **Mobile feature:** Utilizing at least one feature of the particular mobile platform (in addition to Wi-Fi and cellular network connectivity), for example: accelerometer, GPS location, camera, video recording, etc. Basically, the evaluator will be asking the question "Why mobile?"

Note that failure to include all of the above requirements can result in a failing grade.

III. Deliverables

Submit the following two items:

1. Project website [Submit link to Canvas]
2. Project plan (As part of your submission, please include an URL link to the website in your document) [Submit to Canvas + TurnItIn]

3.1) Project Website:

Your project website needs at least the following information:

1. Group number (Assigned): this number is very important is use for identify your group, please remember it.
2. Team name, you can think of a memorial name for your team.
3. Full name and email address of each team member. Also include a brief technical biography of each team member, listing their relevant skills and interests. The project manager (PM) for this assignment and for future assignments (only if you decided to implement a rotation model) should be clearly indicated.
4. Provide a link to your subversion repository. Include explicit instructions for how to check out your project.
5. Give a detailed schedule of your team meetings: show the day, time, and location of each meeting. Take into account the CMPT 275 assignment and exam dates, other course due dates, known absences of team members (due to work, other classes, holidays, etc.), and so on.
6. The title of this assignment, and each future assignment, must be clearly displayed, e.g. in a title or as a menu item.
7. A table of contents linking to the
 - a. 5 assignments. Provide "stub" pages for future assignments.

- b. Meeting agendas and minutes [Each team needs to schedule at least one regular face-to-face meeting per week. Most team finds that they need to schedule at least two or three meetings per week. Instructor will check for compliance at random point during the semester.]

Some groups may want to consider using Google site for their project website. Also, please include a link to your website in the canvas submission form.

3.2) Project Plan

The project plan is a good way to communicate the main goals of your project to team members and other stakeholders. The main task of the project plan is to present an issue or development in a field that is carefully defined. Write it in non-technical language that any university educated person could understand. Consider your audience as a non-specialist that has the power to effect change or make a decision about this proposal.

Your team should schedule at least two brainstorming sessions to work out the scope and vision of your project. Do not worry about low-level details at this point (those come in later assignments), but always keep in mind that you are expected to implement everything this document proposes. Be sure to have someone take meeting minutes for this session!

This is the outline of the proposal:

1. Table of contents
2. Revision history
3. Project summary (~ 100 words vision statement)
4. Project overview (scope)
5. Project planning (estimate and plan)
6. Project schedule
7. Risk management
8. Project Organization and Staffing Plan
 - a. Team Roles and Responsibilities
9. References

1) Table of Content

- In MS Word, this can be automatically generated. See <http://support.microsoft.com/kb/285059>
- Do not forget to include page number.

2) Revision history

Example of Revision History

Revision	Status	Publication/Revision Date	By
1.0	Created	May 12, 2013	<Name of team member(s)>
2.0	Revised (<i>Specify which section(s) of the document was (were) revised and why</i>)	May 19, 2013	<Name of team member(s)>

3.0	Final Revision (Specify which section(s) of the document was (were) revised and why)	Jan 23, 2014	<Name of team member(s)>
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3) Project summary (~ 100 -150 words vision statement)

This is the most important section of the plan. After reading the project summary, I should have answers to the following questions:

- Name of the application + a short catchy phrase
- What is the application? Numbers of functions or features?
- Who is the application for? Age? Education level? Special characteristic?
- Why should I buy (or download) it? Is this application for me or my friend?
- What type of issue(s) is (are) your application going to address?
- Platform?

Note: these questions are guide for you to write your proposal. They are not meant to be short questions and answer for you to “answer.” Please write your proposal in prose format.

4) Project overview (scope)

- This summarizes the problem the project is aiming to solve, and discusses the basic goals at the highest level. This should not be too long or too short, roughly $\frac{3}{4}$ - 1page, about 200 - 250 words.
- Who are the stakeholders? List the people who have a stake in the success of the project.
- Who are the Users? Describe the intended users of the system. Clearly state any assumptions you are making about their expertise, experience, or background.
- **What type of issues are you trying to address with this application? Do you have any data to support your claim? Is that a real problem or something you just “think” it is a problem? Good references are important.**
- Include a list of features.
- What is the overall architecture?
- Any specific objectives?
- Be clear and provide the reader with as much detail as possible.
- Justify your claims with quality literature (i.e. not random search and links from Google search). Reputable journal articles and conference papers are preferred.

5) Project planning (estimate)

- This should be a very detailed plan for your project.
- How are you going to report project progress? What is the communication plan? Meeting schedule? (weekly? Daily? Or...)
- What is the team website?
- Is there any need for external communications? Other stakeholders?
- What is the plan for internal communications? How the team plans to communicate?
- Any configuration control software you going to use?

- Include justification of budget (the maximum allowed amount will be announced in class)
 - Who are you going to hire?
 - What are they going to do?
 - How much it will cost? (Hourly? Weekly? Or?)
 - Any other cost?
 - Etc.
- **Consult**
 - **PM: Ch. 31 Project Management Concepts, Ch. 29 Software Configuration Management**
 - **IS: Ch. 23 Project planning, Ch. 25 Configuration management**

Example

Table 1: The key tasks and various milestones and deliverables for the project

Key Tasks	Start Date (mm/dd/yy)	End Date (mm/dd/yy)	Milestones / Deliverables
Project Initiation	09/03/13	10/16/13	-1 etc. -2 -3
A			

6) Project schedule

- Time? Schedule? (Gantt chart)
 - Define milestones / phase / tasks / deliverables for each sub-phase
 - Work breakdown structure: think about different components and their dependency.
- If the chart is too large, break it down into several tables.
- MS Project can create Gantt chart easily. You can obtain a copy of MS Project from SFU CSIL lab.
- **Consult**
 - **PM: Ch. 34 Project scheduling**
 - **IS: Ch. 23.3 Project scheduling**

7) Risk management

- A risk is a potential problem that would hinder the progress of an activity/project if it were to occur.
- To identify risks need to ask: What could happen that would make our project late?
- Mitigate identified risks by making plans that detail how to avoid the risk or recover from the risk
- **Consult**
 - **PM: Ch. 35 Risk Management**
 - **IS: Ch. 22 Project Management, in particular section 22.1.**
- See <http://www.scotland.gov.uk/Publications/2008/11/24160623/3>

- Scale example⁴

5 Severe	A risk event that, if it occurs, will have a severe impact on achieving desired results, to the extent that one or more of its critical outcome objectives will not be achieved
4 Significant	A risk event that, if it occurs, will have a significant impact on achieving desired results, to the extent that one or more stated outcome objectives will fall below acceptable levels.
3 Moderate	A risk event that, if it occurs, will have a moderate impact on achieving desired results, to the extent that one or more stated outcome objectives will fall well below goals but above minimum acceptable levels.
2 Minor	A risk event that, if it occurs, will have a minor impact on achieving desired results, to the extent that one or more stated outcome objectives will fall below goals but well above minimum acceptable levels.
1 Minimal	A risk event that, if it occurs, will have little or no impact on achieving outcome objectives.

Table 1: description

Risks	Potential Impact on Project (what scale do you use?)	Likelihood of Occurrence	Impact area	Mitigation Strategy
<TYPE OF RISK>				
RISK 1				
RISK 2				
<TYPE OF RISK>				
RISK 1				
RISK 2				

8) Project Organization and Staffing Plan

- Team Roles and Responsibilities
- For each team member:
 - Name, email address, photo (the person should be clearly identifiable)
 - Skills, background and other relevant information
- **Consult Ch. 22 Project Management of our text, in particular section 22.1.**

9) References

⁴http://www.mitre.org/work/systems_engineering/guide/acquisition_systems_engineering/risk_management/as-e-rm-riap-table1.jpg

- We will be using the IEEE citation style: <http://www.lib.sfu.ca/help/subject-guides/engineering-science/citing-writing>
- Please note :
 - ✧ Wikipedia is not a credible source, using such source in your proposal will results in
 - ✧ Learn to use your library. You can search for books, journal papers, and databases (instead of just “Google” it...)

Appendix A) Team meeting(s) agenda(s) and minute(s)
 Include meeting agenda and minutes from the first couple meetings.

For example, a simple meeting minuet form:

Group # and name:			
Purpose of Meeting:			
Date/Time:			
Chair:			
Attendee:			
Absent:			
Topic	Discussion	Action / Decision	Person responsible / Due date
1			
2			

Important General stylistic notes:

- Please include group number in title page.
- Print using 12 points Times New Roman font.
- Text should be single spaced on 8 1/2" x 11" paper with 1 inch margins, single sided.
- Number pages consecutively.
- Adhere to recommended page limits (< 10-12, excluding title page and appendix)
- Caption: All graphics and tables should be numbered and labeled with short descriptions.
- Cite your source using the IEEE style
 - See <http://www.lib.sfu.ca/help/writing> and <http://www.lib.sfu.ca/help/subject-guides/engineering-science/citing-writing>

IV. Submission

ONE SUBMISSION PER GROUP. You need to submit your document in two locations:

1) Submit via canvas.sfu.ca

Submit any document in two formats: MS Word and PDF.

Filename convention: Group-XX-ProjectPlan.docx. Note that XX is your group number (e.g. group one will be 01, group 10 will be 10).

2) Turnitin

Plagiarism detection software (Turnitin) will be used to screen assignments on this course. This is being done to verify use of all material and sources in assignments is documented.

- Class ID: 16327407
- Enrollment password: cmpt275isfun

Please note that marks will be deducted if you do not follow the above specifications (include but not limited to filename convention, file format, and citation style).

NOTE:

In the future assignments, all documents that you submit in this class should contain the following information / elements:

1. Cover page
2. Table of contents
3. Revision history
4. Page numbers
5. Group number
6. Member's full name (first name + last name)

- END -