Visual Course Planner

Project Charter

Version 1.0
08.26.2018

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1 INTRODUCTION

1.1 PROJECT INFORMATION

Project: Visual Course Planner for Computer Science
Project Sponsor: Dr. Abdallah Mohammed, Department of Computer Science, University of British Columbia, Okanagan
Project Manager: Noman Mohammed

1.2 PURPOSE OF PROJECT CHARTER

The Visual Course Planner project charter documents and tracks all necessary information required by the client and project team to approve the project. The project charters includes the needs, scope, justification and resource commitments to proceed or no proceed with the project. This document was created during the initialization of the phase of the project.

The intended audience of the Visual Course Planner project charter is the project client, project sponsor, and project team.

2 PROJECT AND PRODUCT OVERVIEW

The Visual Course Planner is a desktop web application that allows students to visually organize their courses for the upcoming year.

The creation of a Visual Course Planner for a degree or program at UBC Okanagan will take place over the next 8 months, starting September 18th and finishing April 1, 2019**.** Upon completion, students will be able to create an account and use the program to plan out their course schedule for their complete duration at UBC Okanagan. First view of the planner will provide students with a default schedule based on the courses offered that year and which Bachelor program they are enrolled in. The ability to move and change courses will be available for each student. Suitable warnings will be visible when a change to the default schedule is given if: the change prolongs degree completion, prerequisites are needed, or if courses clash with each other (ie. course occurrence at the same time). Students will be able to save 5 degree schedules on their account so they can leave and return to revise the the degree plan later.

Students will be able to utilize a one-click optimize feature, which will compress their degree length to the shortest period possible, given some options (taking summer courses, enrolled in the co-op program).

The connection of each students account and visual course planner will not be implemented during the creation of the planner. All content (ie. courses, prerequisites, course description, term offered) will be provided by UBC Okanagan campus. Integration with another system (ie. UBC Okanagan website) will be supported but not implemented. Responsive design will not be supported.

3 JUSTIFICATION

3.1 BUSINESS NEED

Students at UBC, especially those new to the university, often have a difficult time seeing how courses fit into their overall degree requirements. At present, there is only a static web page that shows which courses are required for a given program without providing the course interdependencies. That information must be found

elsewhere. Due to this, the information partition results in confusion around what courses to take during what semester to fulfill degree requirements.

4 SCOPE

The aim of this project is to create a desktop application that visualizes the course structure of a given academic program (e.g.. Computer Science majors in this case). Courses will be interlinked to show course interdependencies (e.g. prerequisites). Courses will be distributed over several semesters that cover the program duration. Once a user (student) creates an account, the system will provide an initial course plan (as recommended by the department). Users will then be able to modify the plan to better suit their needs. Once done, the user can save their plan under their account, and they can retrieve and revise it later if needed. The purpose of this project is to help students better plan out their course schedule for each year at UBC Okanagan.

4.1 OBJECTIVES

The objectives of the Visual Course Planner are as follows:

1. Improve first-year experience by streamlining their degree planning process and giving them a clear course progression through their degree.
2.

4.2 HIGH-LEVEL REQUIREMENTS

- Users are able to create an account and store up to 10 degree plans
- Account holders can view their saved degree plans
- A department-approved course plan is initially displayed to the user
- Administrators can upload information about future courses offerings
- Users are warned of any course clashes, prerequisite conflicts, or prolonged degree completion
- System will store

4.3 NON-FUNCTIONAL REQUIREMENTS

1. Changes must be saved by student before leaving their active session in order be returned to and make more changes
2. Program information is required before any courses are displayed
3. Degree information is able to be uploaded in CSV format
4. Shortest degree plan is suggested based off of which courses are offered the current year and which courses the student has tailored to their preferences
5. Warnings are to be displayed immediately once a change has been made that affects the degree plan by prolonging the graduation date, missing prerequisites and course clashes
6. Drag and drop organization of courses that immediately updates the degree plan

4.4 FUNCTIONAL REQUIREMENTS

1. An account holder will be able to store up to 5 degree plans, associated with a unique id.
2. To create a new degree plan, the user will first select their chosen program
3. Upon selecting a program, a default plan is displayed to the user
4. There will be a button that when clicked, will take the chosen courses and return a plan that is as short as possible
5. If the user makes a course change that prolongs degree completion, or is missing prerequisites, they will be given a visual and textual warning
6. Drag and drop functionality for the reorganization of courses based on the students preferences.

7. The optimization will be able to account for student preferences as parameters
8. Users can save a text description with every course plan

4.5 USER REQUIREMENTS

1. The system will accept a user's username, name, and password for account creation
2. Users will be able to save up to 5 degree plans
3. Users will be able to drag and drop course to make their degree plan
4. There will be an "Optimize" button that a user can click to compress their course load into the shortest time allowed by the school.
5. Administrators can upload current course and program information
6. Users can favourite course plans, displaying them above their other course plans

4.6 TECHNICAL REQUIREMENTS

1. The system must be able to be displayed on a desktop web browser

4.6 MAJOR DELIVERABLES

MAJOR DELIVERABLE	**DELIVERABLE DESCRIPTION**
Account Creation	Users are able to create, modify and save their potential degree plans
Course Recommendation Scraper	Students are able to build their customized degree from the department recommendation
Optimization	With one click, students will be able to compress their degree to the shortest amount time, given options like if they are taking summer courses, or are participating in the co-op program.
Course Display	Users can see all currently offered courses
Drag and Drop	Users can easily drag and drop courses to build their degree and see any course dependencies (prerequisites, corequisites, standing, minimum grade)
Visual Design	Have a visually pleasing and intuitive interface

4.7 BOUNDARIES

4.8 ENVIRONMENTAL CONSTRAINTS

1. The system must run on a UBC server

5 DURATION

5.1 PROJECT MILESTONES

[Identify the significant project milestones: start date, end date and invoicing dates to the client.]

- Start Date: September 25, 2018
- Milestone #1: Project Charter and Scope: October 16, 2018
- Milestone #2:
- Milestone #3:
- End Date: April 1, 2018

6 PROJECT BUDGET

Not Applicable.

7 ASSUMPTIONS, CONSTRAINTS AND RISKS

7.1 ASSUMPTIONS

1. Academic calendar is always up to date.
2. System does not have access to UBC course information directly.
3. Verification of a users identity is not required.
4. System will not store confidential student data.
5. Department will supply all necessary course information.

7.2 CONSTRAINTS

1. Access to UBC Course Database; Unable to receive permission to pull updated course information from UBC Okanagan.
2. Time constraint: 8 months from planning to completion.

7.3 RISKS

1. Project is not completed before the deadline.
2. Team members not contributing as much as needed - other commitments, courses, work etc.

RISK	**MITIGATIONS**
1	Break project into manageable goals, in order to facilitate a clear outline of how much work needs to be done by what date. This will help keep the project on track to completion
2	Team members will track contribution time and if discrepancies are noticed, under-contributing team members will either have to contribute more time, or other team members contribute more time.

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8 PROJECT ORGANIZATION

8.1 ROLES AND RESPONSIBILITIES

TEAM MEMBER	ROLE	RESPONSIBILITIES
Noman Mohammed	Project Manager	Oversees project and ensures team members are on track
Herraj Luhano	Client Liaison	Maintains communication between development team and the client
Jaskaran Lidher	Developer	Works on programming tasks
Mackenzie Salloum	Integration Lead	Manages code repository master branch
Taylor Siemens	Technical Lead	Manages non-code documents in the repository

8.2 STAKEHOLDERS

Client	Dr. Abdallah Mohamed
Sponsor	Dr. Abdallah Mohamed
Project manager	Noman Mohammad
Project team members	Herraj Luhano, Jaskaran Lidher, Mackenzie Salloum, Noman Mohammad, Taylor Siemens
	UBC Students
	Dr. Scott Fazackerley

9 APPROVAL SIGNATURES

The undersigned acknowledge they have reviewed the project charter and authorize the Visual Course Planner project. Changes to this project charter will be coordinated with and approved by the undersigned or their designated representatives.

Dr. Abdallah Mohamed, Project Client	Dr. Abdallah Mohamed, Project Sponsor	Noman Mohammed, Project Manager