ICBC Flex Work

Terms of Reference

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Version 0.2

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Document Information

Revision History

Date	Version	Status	Prepared by	Comments
2020.1.14	0.1	Done	Team Flex	First draft of Terms of Reference
2020.04.11	0.2	Done	Team Flex	Final draft Terms of Reference. Added Introduction, Project Statement, and Project Scope. Fixed estimated time for deliverables to accurately reflect progress.

Document Control

Role	Name	E-mail	Telephone

Approval

Role	Name	Signature	Sign-off Date

Post Approval Distribution

Role	Name

Project Description

Introduction

This document is the **Terms of Reference** for **Flex Work**, the desk-sharing solution by *Team Flex*, for *ICBC*. We are a team of six UBC Computer Science students. This Terms of Reference will recognize the goals and objectives of this project, deliverables with their estimated timeline, benefits, assumptions, dependencies, risks, project governance, and licensing information.

Problem Statement

ICBC would like to ensure their employees are comfortable and enjoy their work. It can be difficult to work every day from a single office in a single location and is counterintuitive to ICBC's vision for employee satisfaction. A solution to this repetitive work environment must be found that allows employees to not only experience a nice change, but also allow employees to seamlessly continue their work. Through Flex Work, employees can make their desks available and book desks made available by others, across all ICBC locations. There will also be an administrator interface for updating information of office locations among other functions.

Project Scope: Goals and Objectives

Note: Any goal/objective not explicitly included within the project scope is excluded from the project.

For the CPSC 319 project, we ("Team Flex") will build a web based solution for ICBC (called "Flex Work") in which ICBC employees will be able to make their work spaces available to others and book work spaces made available by others. Further, there will be an admin interface for managing this.

- Improve ICBC employee experience and operational efficiency through flexible work arrangements
- Build a web based system to manage supply of available office locations where employees can register their work spaces for booking or book other available work spaces
- An admin interface to delete and change any existing approved entry, and adding office locations with optional JPEG floor plans

Deliverables/Estimated Timelines

Deliverable	Description	First Draft Estimated Complete Date	Final Draft Complete Date
Terms of Reference	This will give a basic idea of what the project is about, what	Jan 12, 2020	Jan 14, 2020

	functionalities going to be provided by this system, what are the limitations and constraints this system has, and estimated effort required by implementing this system		
Project Plan	This document will provide more specific implementation details of this system.	Jan 19, 2020	Jan 21, 2020
Requirements	Functional and technical (non-functional) requirements will be analyzed and documented to gain high level of agreement between the business and technical needs.	Jan 26, 2020	Jan 30, 2020
System Design (Internal)	The purpose of a system's internal design document is to communicate to implementers how the system should be built. The internal design document will specify the system's architecture, deployment information, algorithms of note, special plans for addressing noteworthy quality requirements, and programming tools to be used	Feb 3, 2020	Feb 6, 2020
System Design (External)	The External Design will show how the system will appear to its users, how it will interface with existing work processes, how it will interface with other pieces of software, and what kinds of work products are required by/produced by the system.	Feb 3, 2020	Feb 6, 2020
Development	The development stage will consist of coding the implementation of the project,	Feb 21, 2020	March 25, 2020

	along with associated technical code documentation		
Code Review	Code review will be continuous throughout the implementation of the project, and final code review once development is complete	Continuous	
Prototype	Consists of the back-end prototype, along with back-end and front-end integration	Mar 25, 2020	Mar 27, 2020
Risk Based Test Plan	This plan includes Testing Unit & System Integration testing (SAT) & User acceptance testing (UAT) plan	Mar 07, 2020	Mar 10, 2020
Quality Assurance (Testing)	This deliverable consists of testing the entire implementation of project	March 27, 2020	April 01, 2020
Acceptance Document	This document is used to track the status of project deliverables as they are produced, verified, validated and finally accepted.	During/after each deliverable	April 6 , 2020

Benefits

- Increase employee engagement
- Improve accessibility, diversity and inclusion
- Optimize real estate costs
- Reduce commute times, which in turn supports the organization’s commitment towards safer roads

Assumptions, Dependencies and Risks

Assumptions

- There is an implied honor system for the application such that any employee will be able to register work spaces for booking or book available work spaces without any authentication or verification

Dependencies

- ICBC's internal employee authentication system (we will use a simple mock login before integrating this)

Risks

Risk ID	Risk Description	Risk Assessment
1	Handling 1000 peak live active bookings in system	Medium Risk
2	Scaling project to be used by 5000 employees	Medium Risk

Risk Mitigation

Risk ID	Mitigation Plan
1	Stress testing to ensure that performance is not impacted by expected live bookings number
2	Stress testing to ensure that performance is not impacted by expected number of employees Gradual scaling during project progress

Project Governance

Project Team Responsibilities

Resources: Ravina, Srijon, John, Kevin, Charlie, Linh

Project Manager: Ravina

Design: Srijon, Linh, John

Development: All teammates

Documentation: Each teammate is responsible for documenting code they have written.

Code Review: Each teammate's code must be reviewed by another team member. Each teammate should also ensure to the best of their knowledge that their own code would not break master version.

Testing: Each teammate is responsible for unit-testing code they have written. End-to-End testing will be done by Ravina, Kevin, and Linh.

Deployment: Charlie

Project Costs

1. In terms of money, this project is being completed by Team Flex in UBC's Winter 2020 Term 2 offering of CPSC 319: Software Engineering Project course. Thus, there are no financial costs associated with this project as of now.
2. In terms of time, we have allotted 3 months to complete this project from inception to final demonstration. We expect to spend 10-12 hours/week/teammate on this project for a total of around 860 hours

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License

We will be utilizing the Open Source BSD License for this project.