

Assignment 1

Group 5

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1. Introduction

1.1 Purpose of the system

The aim of the project is to develop an online Graduate Recruitment (GradRec) web portal for the university. The online website will allow the departments to advertise upcoming graduation recruitment (Masters/PhD) programs with research details for the prospective students.

The system will allow students to submit their profiles with the information such as education background, previous research experience and interests, and other relevant details. They will be able to select a program based on their research interests from an available list, and provide their motives and justifications for selecting that specific program.

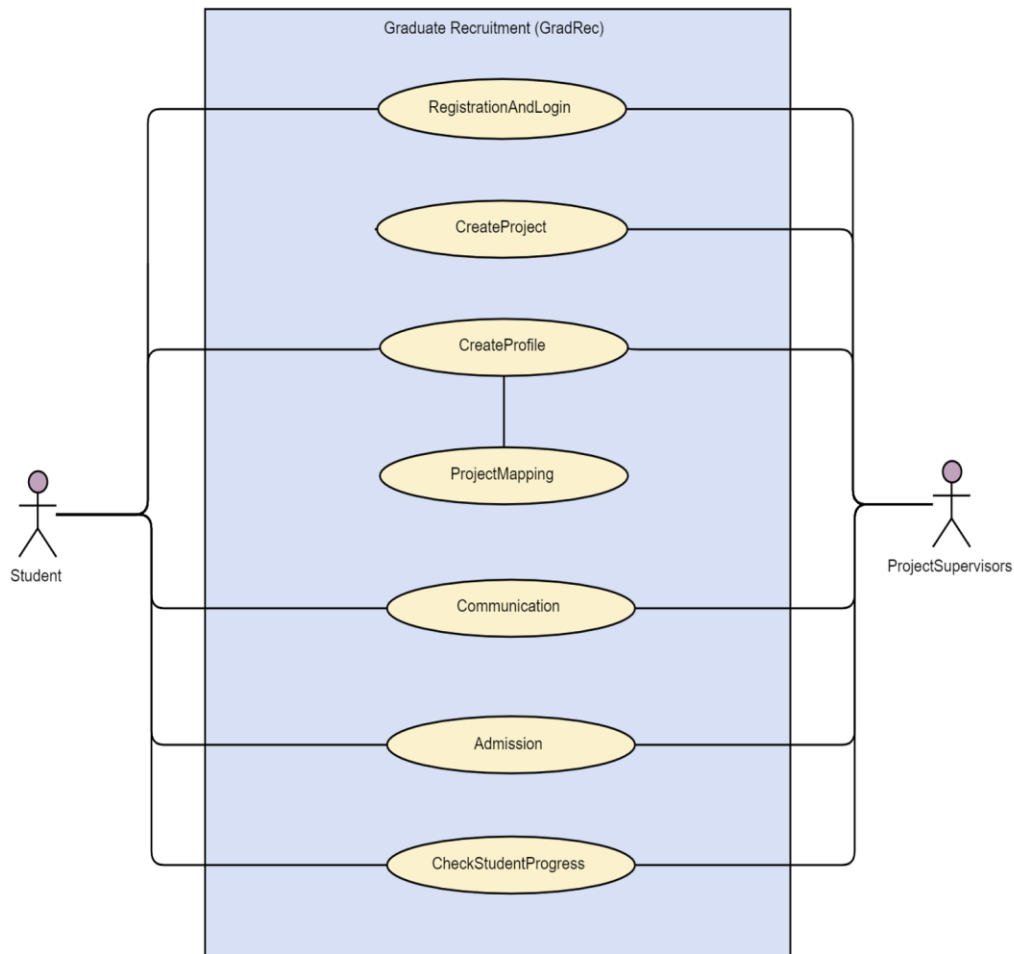
The system is also going to be responsible for handling all future communications between the project management team and the students, and handling functionalities such as offering the formal accept or decline letter to the students and monitoring the progress of the student throughout the life of his/her program.

The GradRec system will use a student - project mapping algorithm to analyze the student submitted profile data and criteria to be selected for a particular project and then notify the project management team or supervisors about the possible student project mapping.

2. System Model

2.1 Use case model

Graduate Recruitment (GradRec) system use case diagram



Use case description:

RegistrationAndLogin:

This use case is for the system security. *project supervisors* and *students* can use online Graduate Recruitment (GradRec) web portal with proper credential and have access to the various functionality of the system based on their role.

CreateProject:

This use case will allow **project supervisors** across all the university departments to register upcoming graduate program and to advertise on online Graduate Recruitment (GradRec) web portal. **Students** have access to there matched program and access to more detailed information.

Createprofile And ProjectMapping:

This use case is for **student** to submit their profiles with the information such as education background, previous research experience and interests, and any other relevant details. They will also be able to select a program based on their research interests from an available list. **project supervisors** able design project criteria which is use by **student-project mapping algorithm** to create student-project mapping based on analysis of student profile data and project criteria and in case of possible mapping informed to the project supervisors. **project supervisors** are also able to create his/her profile.

Communication:

This use case is used to create communication channel between **project supervisors** and **students**.

Admission:

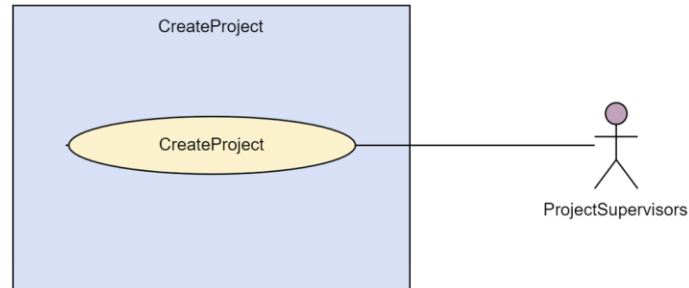
This use case is used by **project supervisors** to offer formal admission letter and by the **student** to accept or decline admission offer and to register.

CheckStudentProgress:

This use case is used by **project supervisors** to update student progress details such as grades, to comment on his/her research project and to evaluate student's performance, and **Student** can use this use case to keep track of his/her progress.

2.2 Use case textual description

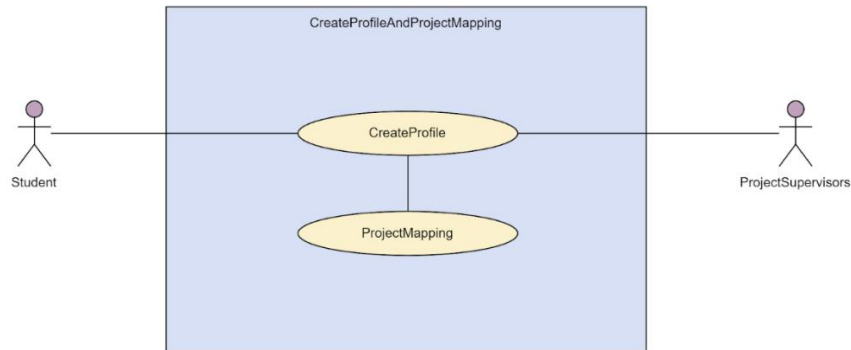
1. CreateProject



Textual Description :

Use case name	CreateProject
Participating actors	Initiated by ProjectSupervisors Participant: <i>Students</i> and <i>ProjectSupervisors</i>
Flow of events	<ol style="list-style-type: none">1. The ProjectSupervisors initiate the program registration form.2. The ProjectSupervisors fills out the form<ul style="list-style-type: none">• Save the form as a draft OR• Final submission to the GradRec system and it will respond with acknowledgment message.3. On final submission GradRec system will add program to the catalog for the advertisement and send acknowledgment to ProjectSupervisors.
Entry condition	<ul style="list-style-type: none">• The ProjectSupervisors and Students are identified by GradRec
Exit condition	<ul style="list-style-type: none">• The ProjectSupervisors receive confirmation message in case of:<ol style="list-style-type: none">1. Draft submission of the new program,2. Successful registration of the new program and advertisement.
Quality requirements	<ul style="list-style-type: none">• The ProjectSupervisors must receive an acknowledgment either in case of failed or successful submission of forms.

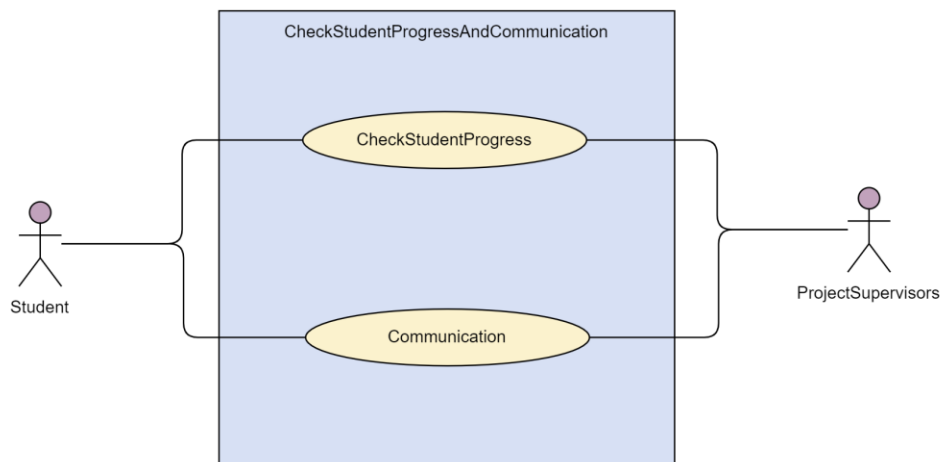
2. CreateProfileAndProjectMapping



Textual description:

Use case name	CreateProfileAndProjectMapping
Participating actors	Initiated by Student Participants: Student, ProjectSupervisors
Flow of events	<ol style="list-style-type: none">1. GradRec system responds with new empty profile registration form.2. The Student fills out the profile form and he/she can select a program based on their research interests from an available list and then submit profile as draft or final submission.3. The Student fills out the form<ul style="list-style-type: none">• Save the form as a draft OR• Make their Final submission to GradRec system which uses <i>StudentProjectMapping</i> algorithm to map student with appropriate project based on analysis of student profile and project criteria.4. GradRec system send notification to the <i>ProjectSupervisors</i> with profile mapping details.
Entry condition	<ul style="list-style-type: none">• The <i>Students</i> and <i>ProjectSupervisors</i> identified by GradRec
Exit condition	<ul style="list-style-type: none">• The Student receive confirmation message in case of draft or final submission of his/her profile.
Quality requirements	<ul style="list-style-type: none">• The Student must receive an acknowledgment either in case of failed or successful submission of profile forms.

3. CheckStudentProgressAndCommunication



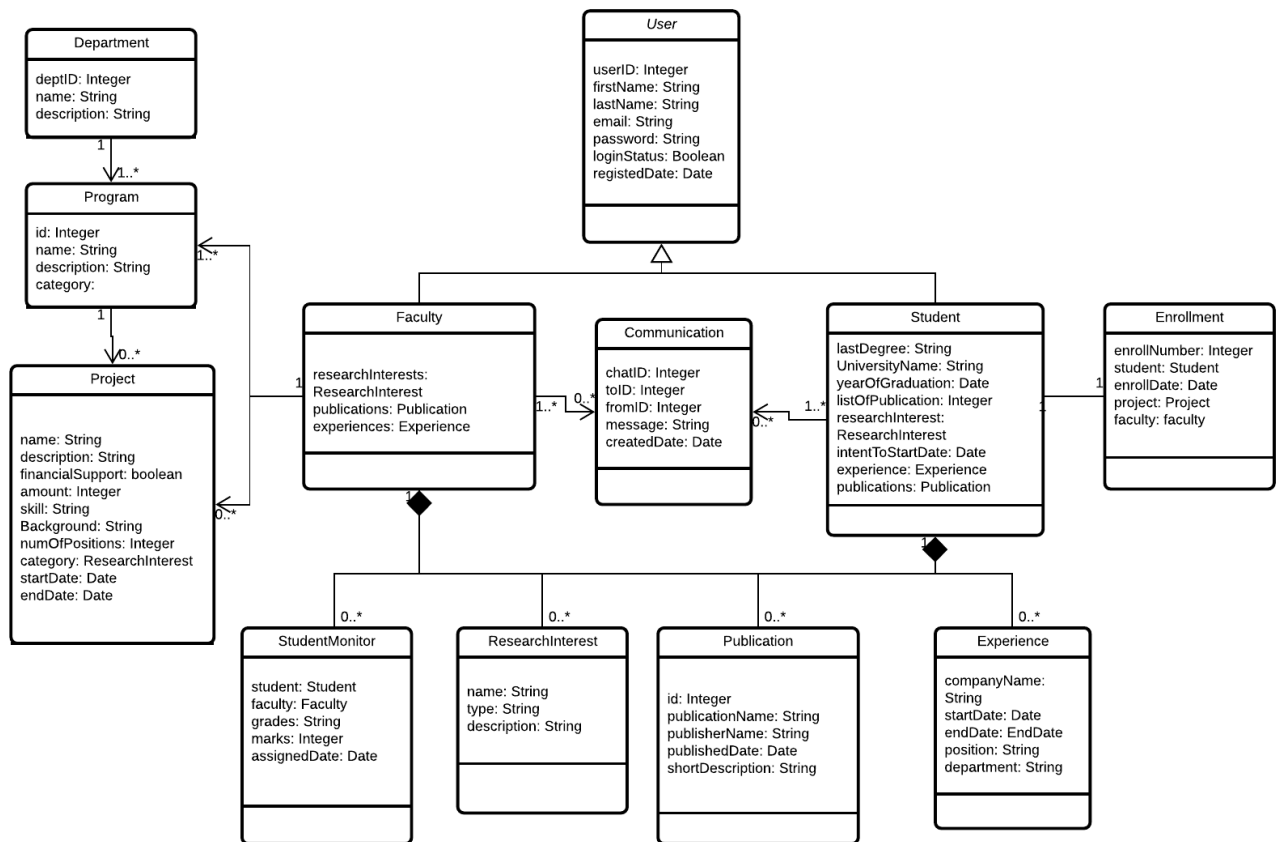
Textual description:

Use case name	CheckStudentProgressAndCommunication
Participating actors	Initiated by Student or ProjectSupervisors Participants: Student, ProjectSupervisors
Flow of events	<ol style="list-style-type: none">1. The Student and ProjectSupervisor uses CheckStudentProgress use case to monitor his/her progress.2. ProjectSupervisor update new details regarding programs or student grades3. The Student and ProjectSupervisor uses Communication use case to communicate with each other.
Entry condition	<ul style="list-style-type: none">• The Students and ProjectSupervisors identified by GradRec
Exit condition	<ul style="list-style-type: none">• The Student and ProjectSupervisor receive notification in case of new changes in the profile or on confirmation of the program.
Quality requirements	<ul style="list-style-type: none">• The Student have access to their profile and his/her progress. The ProjectSupervisor and Student can access communication channel to communicate with each other.

Textual Description:

<i>Use case name</i>	RegistrationAndLogin
<i>Participating actors</i>	User
<i>Flow of events</i>	<ol style="list-style-type: none">1. Register new user<ol style="list-style-type: none">a) Fill register form with details like firstName, Email, Passwordb) Successful registration allow user to access internal part of website.2. Existing user<ol style="list-style-type: none">a) Login with user id and passwordb) Successful login allow user to access internal part of website.
<i>Entry condition</i>	None
<i>Exit condition</i>	None
<i>Quality requirements</i>	None

2.3 Conceptual classes, attributes and associations



2.4 Entity, boundary and control objects

Entity Object:

- Student
- Faculty/ProjectSupervisor
- Program

Boundary Object:

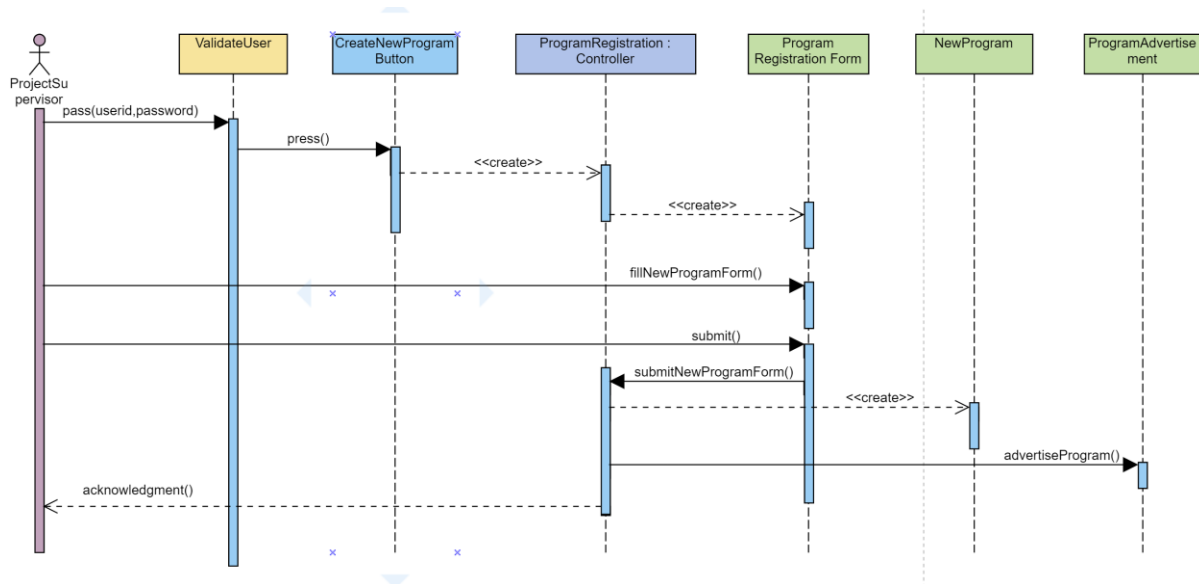
- HTMLForm

Control Object:

- RegistrationAndLogin
- CreateProfile
- Admission

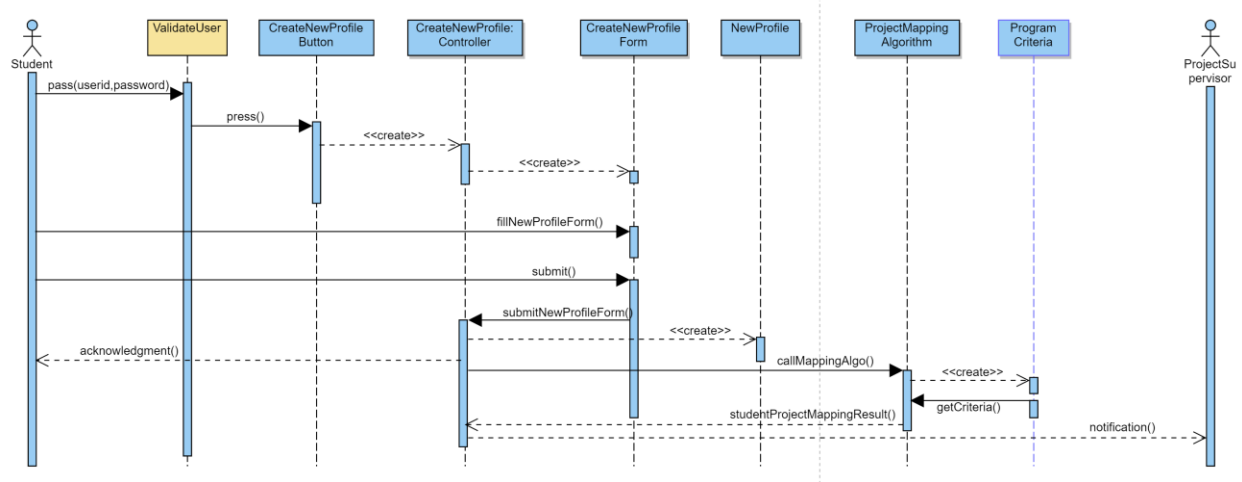
2.5 Sequences diagrams

1. ProgramRegistrationAndAdvertisement



Sequence diagram for the *ProgramRegistrationAndAdvertisement* use case

2. CreateProfileAndProjectMappingNotification



Sequence diagram for the **CreateProfileAndProjectMappingNotification** use case

2.6 Web Link:

Home:

<http://www.cs.mun.ca/~btailor/assignment1/WebContent/Views/Index.html>

Create New Research Projects:

<http://www.cs.mun.ca/~btailor/assignment1/WebContent/Views/Project.html>

Git Hub Link:

<https://github.com/kaushlenderk/GraduateRecruitment>