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**Universities POV Exchange** 

**Project summary**: (max. 500 words) (Please state the main objectives of the project and its realistic constraints clearly, and the broadly final results, also ensure that the project is attainable in one semester)

This project targets university students who intend to become exchange students overseas. We aim to help simplify all the complicated steps that students have to go through to decide which universities they want to do an exchange. We will reach our goal by making a website which displays information about courses, accommodation, tuition fee, etc. for each university, with potential exchange students as target audience.

The initial scale of the project is limited to some universities in South Korea, and will be expanded gradually. The final results will be a webpage where students can create accounts and login, check for universities which their school has partnership in exchanging students, and then access information relating to the schools and their education systems and services. Users can also contribute by suggesting their schools' exchange program if not available in the webpage, upvoting for valid suggestions from the community and otherwise, and keeping track of universities that they are currently interested in.

In addition, previous exchange students can leave a review about their experiences at their exchange university. Each review can be up and down-voted, such that the potential exchange student can see the credibility of each review.

Problem Statement: (max. 200 words) (Define what is the problem the project will try to solve)

It can be quite overwhelming to gather all the information needed to select which universities to apply for exchange for. Your own home university often has a list of partner universities, and you yourself have to go trolling through their websites looking for information. You quickly lose the overview.

University benefits differ towards exchange and general students. For example, some universities do not provide dorms to exchange students, and some provide dorms to only 9 out of 10 students. Proportion of English courses within a University is also an essential criteria in choosing for students who want to do an exchange. However, getting information about the necessities such as housing, fees, courses, and foods is confusing as general students do not acknowledge that the benefits provided by each university differ. Universities also do not organize information for exchange students, thus exchange students rely on their own small communities and googling through to share and get information. Our goal is to provide accurate and user-friendly information about universities for exchange students.

**Related works** (No words limit) (describe what are the existing solutions available to solve this problem and you can include Figures or Tables to this section).

## **Capstone Design**

## **Project Form 1**



Currently, there has not been any service that tackles this issue of searching / selecting exchange universities. Students would have to go through several steps from where all the information needed is distributed all over the places on the Internet as the following:

- 1. Looking for universities which form an exchange partnership with his/her university.
- 2. Checking if those universities provided courses (English provided, number of credits approved, etc.)
- 3. Checking if accommodation (e.g. dormitory) is provided.
- 4. Evaluating other factors: visa requirement, tuition fee, grading system, school semester's period, etc.)

**Proposed Solution** (No words limit) (describe the team vision to solve this project problem. This section can include any technical details. Please note that the described solution in this section can be changed later once you start implementing the project solution) You can elaborate on your idea by adding Figures, resources, references, or extra explanations to clarify the proposed solution

#### Vision

We want to make it become a unified place where information about exchange is accessible from one place. With this, it will become handier with only some simple steps and instead of spending lots of time trying to surf the Internet to get the piece of information they need. We also want it to be a place where previous exchange students can write about their experiences, so new students can take their account into consideration when choosing their dream university.

We aim to make a website where the user can quickly get an overview of the relevant universities for their exchange. The website should have basic information about those universities and reviews about them for students to have an overall understanding about their available options.

In the prototype we will limit ourselves to universities within South Korea, but this idea could be expanded to the rest of the world.

Our project needs to gather the information from the different universities' homepages. This will be based on the community, where students can contribute by suggesting relevant information, and upvote / downvote suggestions from other people. Having community contributions helps greater the scalability of the website.

### Webstack

We have not yet completely landed on our webstack yet, but we know that the frontend should be React/Next.js and the backend should use Python and we want to host the website through Azure. So far we are thinking about the following web-stacks:

Frontend: React, Next.js

Backend: Flask

Database: Azure + SQL based

We are also debating whether to use Django instead of Flask. Django has a lot more built in functionality than Flask. Which makes it more complex to learn the framework, but quicker to develop functionality when you are familiar with it.

## **Capstone Design**



**Main functions of the project** (Items that describe the main functions of the project. These functions can be modified or increased later in the implementation stage)

The website will have the following functionality:

- As a user, I can filter the universities by name, such that I only see my home universities partner universities (school ranking order / alphabetical order / tuition fee order / ...)
- Summarize the information
  - housing
  - o course catalog (based on language the user is proficient in)
  - o global score
  - o location
  - o requires visa or not (depends on the nationality of the student)
  - tuition fee (may be dependent on home university agreement)
  - o grading system (P/F or alphabetical)
  - beginning and end of semester (American unis start in Sept, and Asian unis start in March in general)
- Previous exchange students should be able to leave reviews on their respective university
  - o other users can up-vote a good review
- A user can register and login to an account
  - o username, home university, exchange university (if relevant), nationality, email, password, languages
- A registered user can log in with an account
  - o save a list of partner/relevant universities'
  - o star/save/bookmark interesting universities
  - o leave a review of a university
  - o up/down vote previous reviews
- A user without an account can
  - o filter and search for universities
  - o see others review without interacting with them

## **Time Plan and Roles of Team Members** (this includes time plan for the project stages)

Number of Students (min. 3 students, max. 4 students):

#### List of students:

Student ID	Student Name	Contact or Email	Initial Project Role					
2020312627	Seoyoung Kwon	kwonseoy@gmail.com	Backend Development					
2024318214	Lise Birgitte Ullevaalseter	liseuliseu1@gmail.com	Backend Development					
2021313427	Trinh Quang Tien	tqtien.a11619@gmail.com	Frontend Development					

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			3	4	5	6	7	8	9	10	11	12	1	14	1	
													3	ļ	5	

# **Capstone Design**

# Project Form 1

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UNIVERSITY								
Planning & Specifications	Whole team							
Collecting Data								
Beta & Testing								
Wireframe / Prototyping	Trinh Quang Tien							
Webpage Design (Figma)								
University page (UI)								
Account login/register								
Filter & search params								
Review system (UI)								
Advanced features								
Beautification								
Database & Server Design	Seoyoung Kwon							
Basic project setup								
University page - basic								
Account system								
Search and filter on Unis								
Comment/review system								
University page - advanced								
Refactor								
Database & Server Design	Lise Birgitte Ullevaalseter							
Basic project setup								
University page - basic								
Account system								
Search and filter on Unis								
Comment/review system								
University page - advanced								
Refactor								