

# Course Analysis and Registration (CAR)

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*Software Engineering Spring 2022 - Final Project Presentation*  
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# Problems

01

## **Albert is too complicated**

NYU Albert has often been rated by students as slow, unappealing, and too complicated for common tasks like searching for courses, checking a course's availability

02

## **Four Year Plans are time consuming**

The plans are essential to keep track of academic progress but requires students to spend time refilling their four-year plans frequently and manually through Excel

03

## **Old UI & UX and not user friendly**

Users need a faster, more easily accessible and user friendly system to help them plan their semester

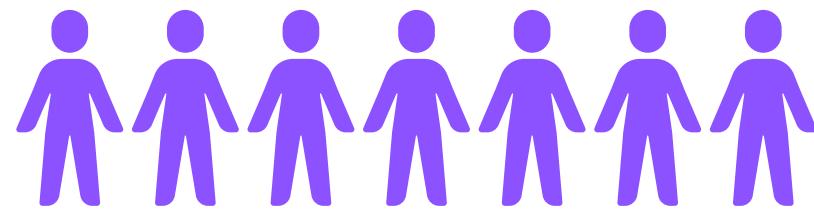


# Motivation

Our main motivations after surveying the key stakeholders about their pain points

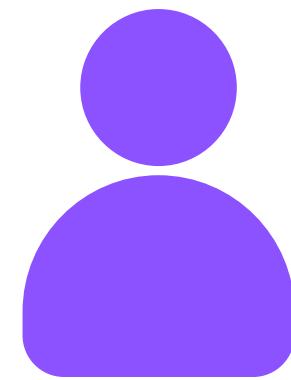
- Increase student satisfaction and reduce stress induced by course registration, helping create good mental health for the student body
- Make creating four-year plans easier and more specialized to the students' current state
- Provide a medium to find ratings and add classes to the student's plan in one place, saving time

# Stakeholders & Their Requirements



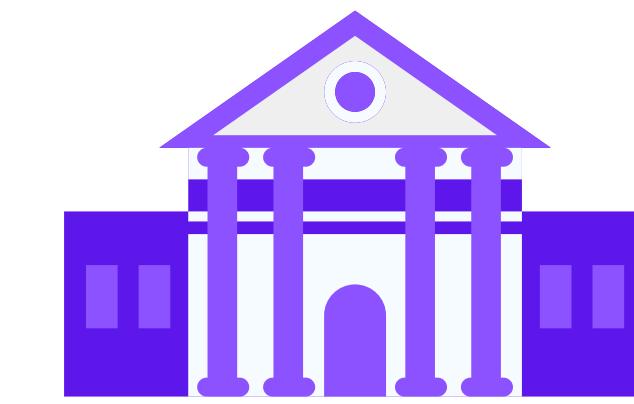
## Students

Streamline their course planning, monitoring, and registration process



## Admin

Update existing course plans from the system



## University

Provide utility to other stakeholders by making resources like CAR available



# Our Solution

## AUTOMATED FOUR YEAR PLANS

Produce an automatic plan for the student based on their classes, majors, and information on graduating on time with the current class offerings. The user is able to adjust the plan produced and downloaded locally.

## BETTER COURSE SEARCH

Browse and search for courses offered based on major, location and other filters alongside professor reviews

## DEGREE PROGRESS REPORT

A report calculating how much of a user's degree (based on major/minor) is completed and how which courses need to be taken, along with a percentage of completion

## ADMINISTRATOR CONSOLE

Admin users can add or modify information for all the users including course information, course requirements, and add/remove users while also controlling year progression



# Advantages



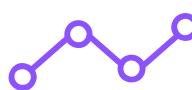
## Saves Time

Our algorithm does the work in seconds that students need to spend hours doing, like finding an optimum, flexible four year plan and other features saving a lot of tangible time



## Better Mental Health

Reduces confusion during academic planning and the stress that comes with it, helping students be more comfortable with the process and increase satisfaction



## Saves Financial Resources

Reduces the load on academic counsellors having to manually guide students as the software does it for them, also reducing the need to hire new academic counsellors and saving money

# Product & Demo

**CAR Login**  
*course analysis and registration*

Here's Screenshots from our website application

We'll now show a live demo of our features

The screenshot shows a search interface with dropdowns for Year (2020), Semester (Fall), and Department (Arabic Language). A "Submit" button is visible. Below the search bar, two course listings are shown:

**ARABL-UH 3450 Directed Study in Arabic Language**

PreRequests					
	Section	Code	Day	Time	Professor
	001	27515	TBD	TBD	Ali Adeeb Alnaemi

**ARABL-UH 3110 Advanced Arabic 1**

PreRequests				Time	Profes
	Section	Code	Day		
			Sunday Thursday	10:25-11:40	Laila F

**ARABL-UH 3110 Advanced Arabic 1**

PreRequests			Time	Professor
	Section	Code		
			10:25-11:40	Corinne Alden Stokes Manal AlMarzooqi

NYU ABU DH

Course Search

Four-Year Plan

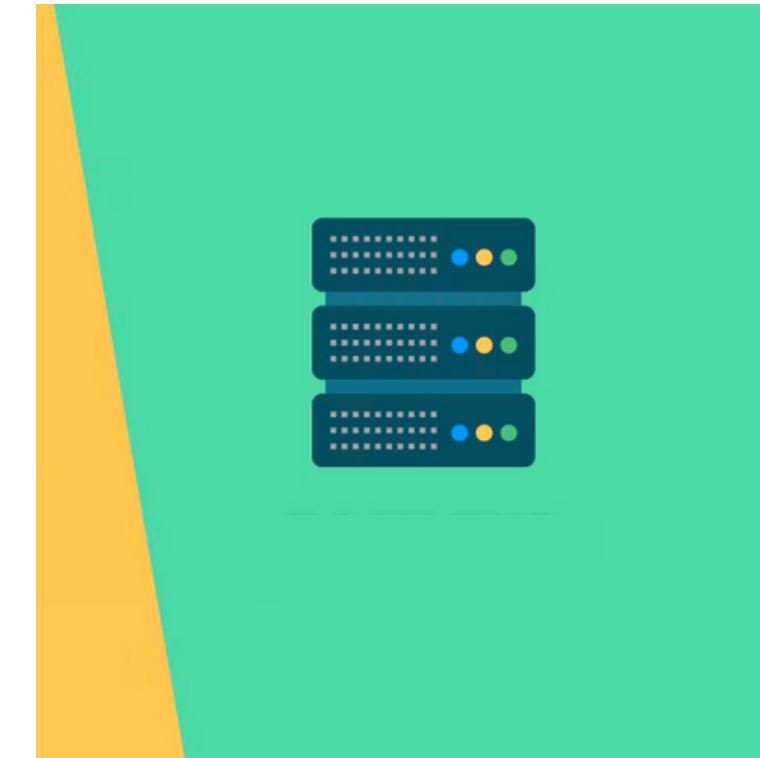
Degree Progress

# Implementation & Testing



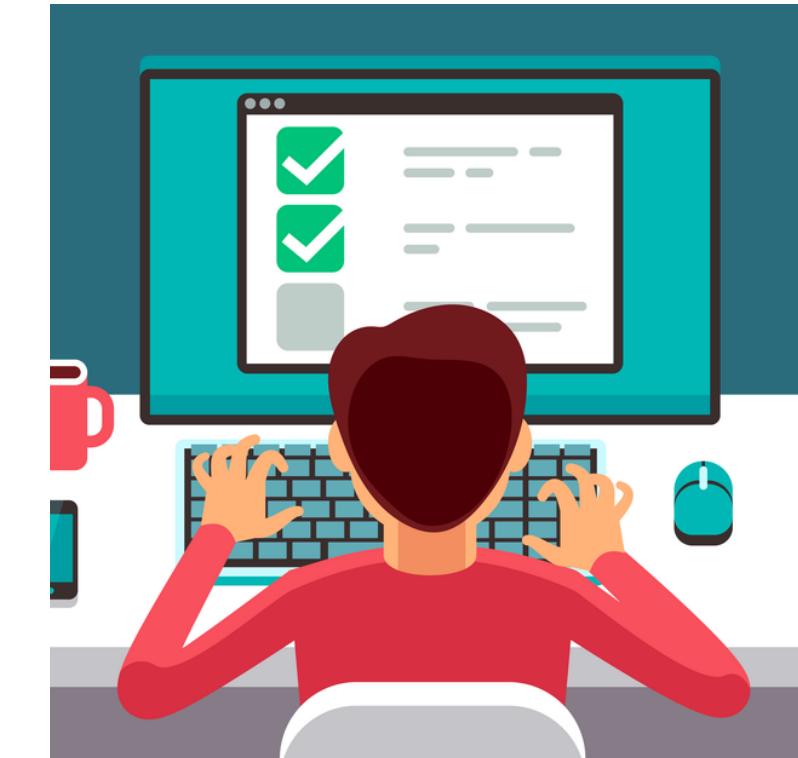
## Frontend

HTML5, CSS,  
JavaScript, AJAX



## Backend

Flask, Jinja  
Templating, Firebase  
Authentication



## Testing

Test Plan, Multiple  
Test Cases for Each  
Function, Continuous  
Testing



# Business Model & Future

We have a B2B model - to license the edTech software to universities. Depending on our pilot program at NYUAD, the pricing would be set.

Future potential goal to be expanded to universities internationally due to significantly low development time and cost, making it highly scalable.

# Our Team



LIYAN IBRAHIM



JUAN PIÑEROS



AKSHAT TOTLA

# Conclusion



- ✓ A self-developed project with high scalability and practical application
- ✓ Limited time and resources
- ✓ Great learning outcome and skills development
- ✓ Increase student satisfaction on campus and helps students take charge of their academic journeys

**Thank you**

