

NATIONAL UNIVERSITY OF COMPUTER AND EMERGING SCIENCES

Software Design & Architecture Lab

LAB Instructors: Sobia Iftikhar “Sobia.iftikhar@nu.edu.pk”

Task 01

There are Multiple Mobile Application available online on play store. Every Application developed for particular reason. Now a day's one application getting more popularity as a Car service, named as “Careem Car”. Which is mostly use for picking up and drop off from the particular location. Careem is a vehicle for Hire Company which is a subsidiary of American company. It is based in Dubai, with operations in over 100 cities in 15 countries in the Middle East, Africa, and South Asia.

Before availing this service you have to download and install from a paly story. It is the basically Mobile application so this application can directly linked with you phones' GPS services. You just have to open the application and create an account with your phone number, email id. Then you will get confirmation email or SMS from administrator/server. Application have two option one is use as a passenger or you want to be Careem Captain. If you selected Careem Captain, that means you have to fill the form, also select your training slot and you can train at cream official center.

After completing your training, you will receive a confirmation SMS. Log in to portal and start earning. You will able to see you captain portal.

For some rides you can collect the cash from the customer, but credit card and wallet based option is also available.

If you are using Careem as passenger. Then Select from a wide range of options and get a ride in minutes or schedule one for later. Add a pick up and drop off location, From the moment your Captain is assigned till you get to your destination by administrator, you can track your ride in real time or share your details with your loved ones. Payment method for ride, you can use different options like if you want to pay as Cash, card, or Careem credits, there is also one option regarding feedback rating. After the happy ride there is option of 5 star rating. If you are satisfied with

Captain behaviour and ride, then you can rate a captain on Careem app. This feedback will help full for the captain.

- i. **Identify the actors for the following system.**
- ii. **What are the candidate use cases you can find?**
- iii. **Design the Complete USE CASE diagram for given System.**

Task 02

The University of Ottawa, the world's largest bilingual university, has an enrollment of over 40,000 students across 450 study programs and 10 faculties. They offer scholarship to national and international students. For the national students, scholarship will be partially funded and for the international student they offered fully funded scholarship. When students open the official website of University of Ottawa, Applicant have to login into website to create a account. Before log in, applicant must have to register him or herself with national id, name and country name, email id. After successful registration applicant can log in with email id and national id num as password.

After log in applicant select the international scholarship and upload passport, fill the application form and upload qualifications. For national applicant must have to upload National Id card picture and upload the necessary documents and qualification details. Now at the backend Admin log in to website and verify all the uploaded documents and click on submit. After verification of applicant's details, admin will generate a email about status update from submitted to under review. When admin finalized the review process and shortlist the applicant, applicant will open the portal and can see the updates. After short listening Admin sent invitationof interview .

Task

03

Azure Machine Learning designer tool to train and deploy a machine learning model that Predicts the next level data. That designer tool is a drag-and-drop tool that lets you create machine learning models without a single line of code. Azure Machine Learning designer tool is an online platform that will use for data training purpose and Forecast the results. For such system they you provide a Flexible platform for uploading a raw data set.

Dataset file must be CSV or Excel file format. Before starting you have to log in then you will be able to see these listed features:

Import data.

Prepare data.

Train a machine learning model.

Evaluate a machine learning model.

After Importing the data file, system will show feature selection options for data preparation, data preparation relies on two steps, first one is to select the particular column using Select columns dataset module and second one remove the remaining missing data by using the Clean Missing Data module. After filtration, Now that you have the modules in place to process the data, you can set up the training modules. For this, you have to split the dataset for training and testing purpose.

Training dataset will be processed further with particular Artificial Algorithms, you have to choose the algorithm according to the nature of your data, there are two categories of Algorithm either it is regression for numeric data or classification for labeled data.

After applying particular algorithm now evaluate your Test data with confusion matrix in order to check the Correctness of system and accuracy.

You have to apply more than one algorithms in order to identify the best fitted algorithm that gives your high range of correctness.

Task 04

Write Use a User Story on Following Use Case Diagram.

