UGANDA CHRISTIAN UNIVERSITY

A Centre of Excellence in the Heart of Africa

FACULTY OF ENGINEERING DESIGN AND TECHNOLOGY

NAME: NKATA JOSHUA LUYOMBYA

REG NO: S21B23/008

ACCESS NO: A94161

COURSE: BACHELOR OF SCIENCE IN COMPUTER SCIENCE (BSCS)

COURSE UNIT: WEB PROGRAMMING

LECTURER: MR.KENNETH MUSASIZI

QUESTION 1

Nkata Joshua Luyombya – Technical Lead

Tim Collins – Frontend Developer

Collins Benda – Backend Developer

Susan Tendo - Design Lead

Ssozi Joshua – Marketing Lead

Deo Derrick – Event coordinator

QUESTION 2

Briefly explain to your teammates the kind of web architecture you are going to use and why.

Am going to use the server less architecture or Backend-as-a-Service to build the web applications i.e. firebase

Reasons as to why:

It allows developers to focus on writing code for their application's business logic, without worrying about managing the underlying infrastructure. With serverless architecture, the cloud provider manages the infrastructure and automatically scales the system based on demand, which can save us a lot of time and effort.

It can be more cost-effective than traditional architectures because developers only pay for the computing resources that are actually used. This makes it an attractive option for small startups or businesses that want to keep their costs low.

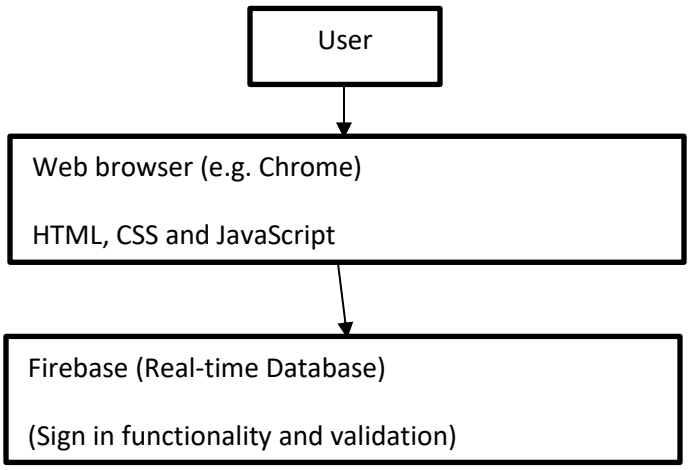
Backend-as-a-Service (BaaS) platforms like Firebase, offer developers pre-built backends that can be used to build web or mobile applications without the need to write server-side code. This can be a great option for small teams or developers who do not have the expertise or resources to build and manage their own backend infrastructure.

BaaS platforms provide a range of services such as authentication, real-time databases, cloud storage, push notifications, and analytics, which can be used to build a complete application quickly and easily. This can save developers a lot of time and effort and allow them to focus on developing the front-end and user experience of their application.

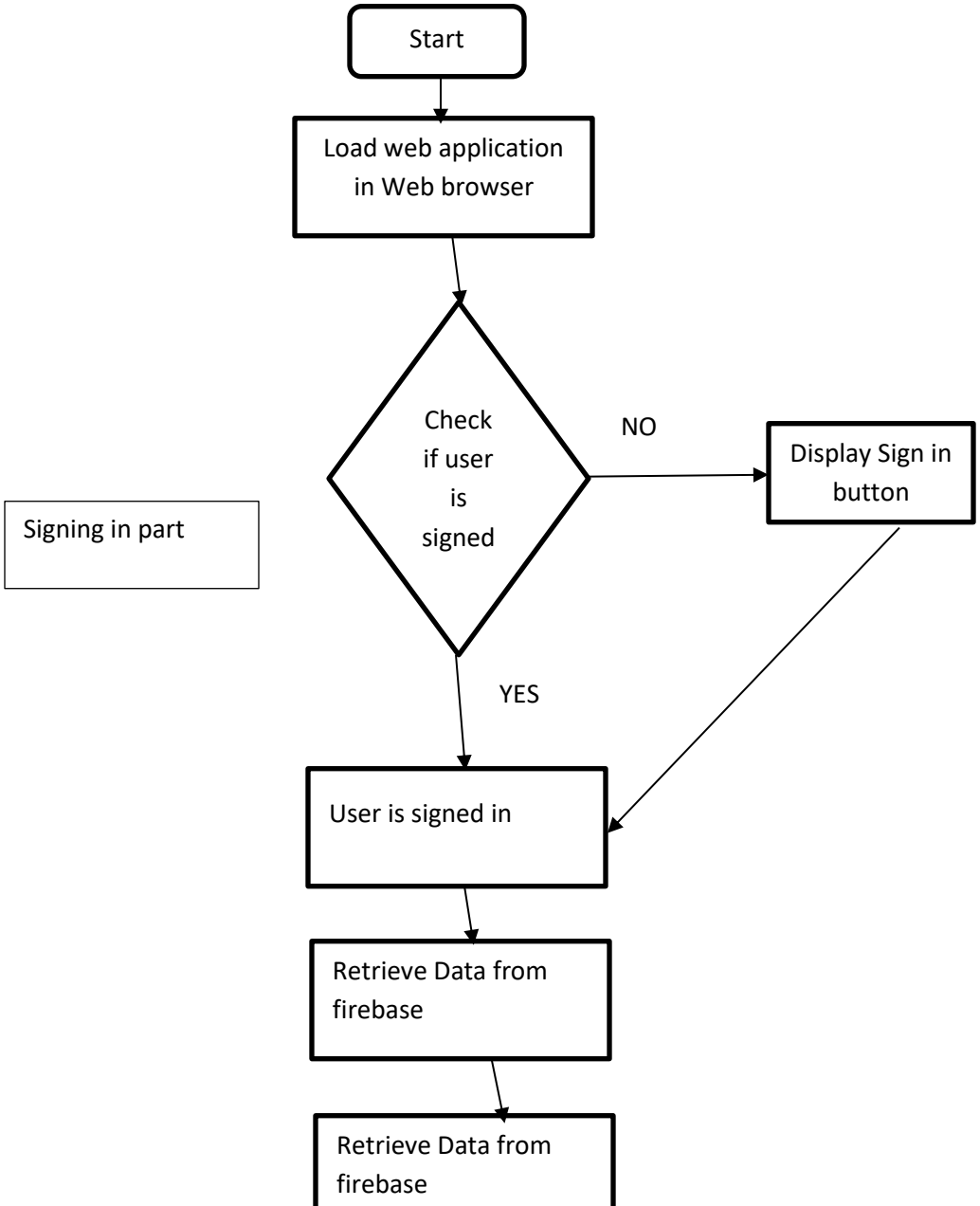
QUESTION 2

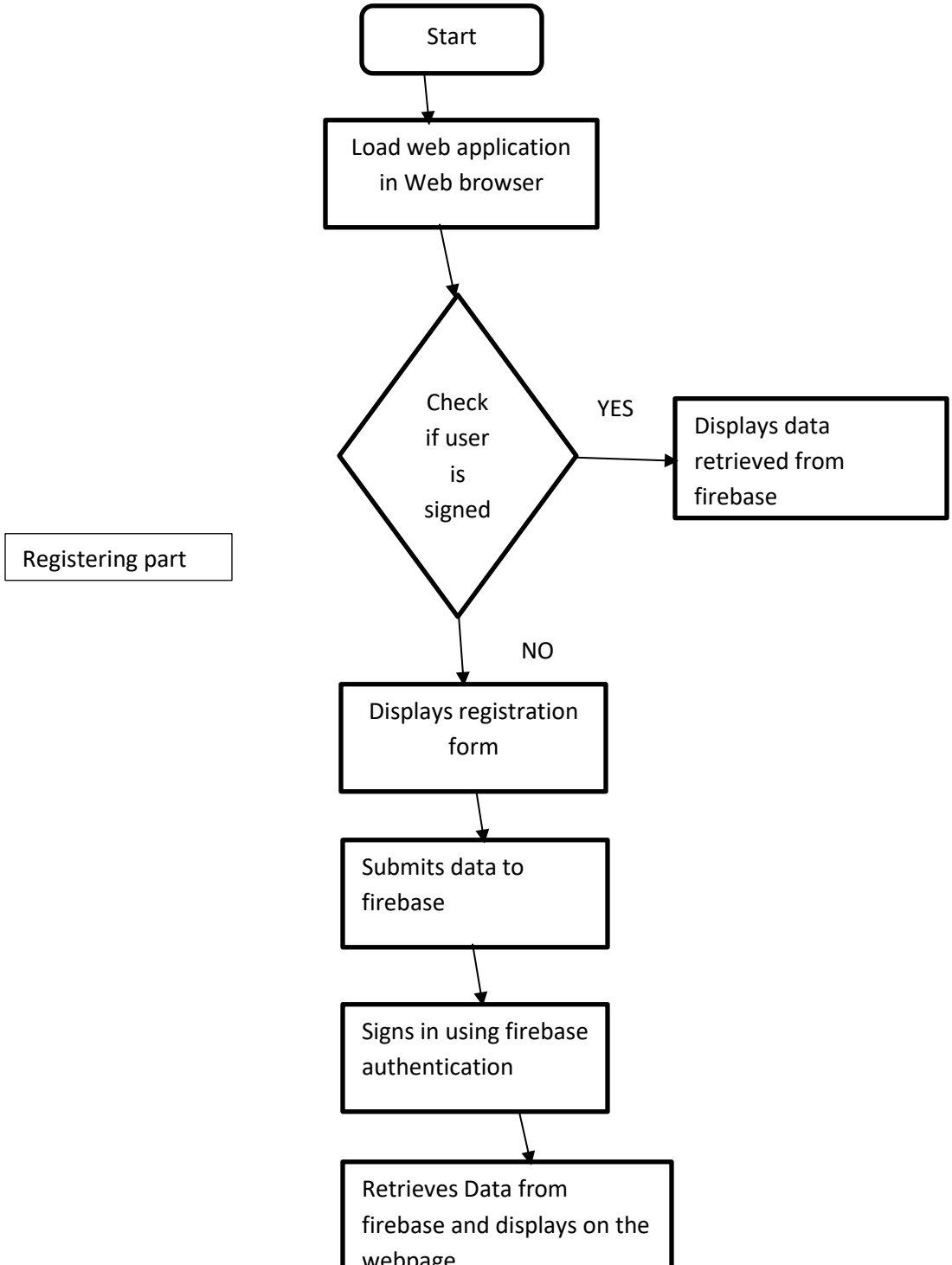
Draw the following diagrams as part of your Analysis and Design phase of the Web Application.

I. Architecture Diagram



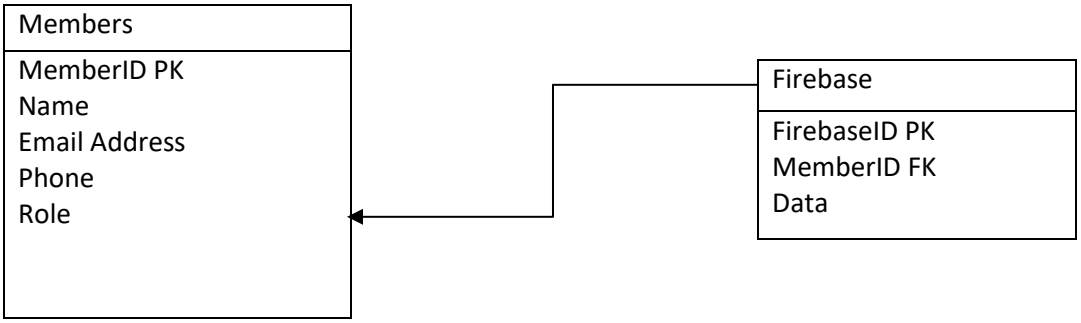
II. Flow Chart



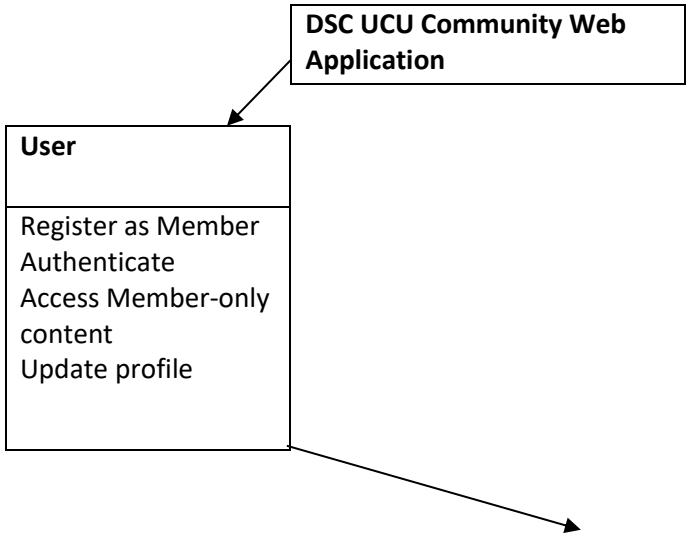

Start
Load web application in Web browser
Check if user is signed
YES
Displays data retrieved from firebase
Registering part
NO
Displays registration form
Submits data to firebase
Signs in using firebase authentication
Retrieves Data from firebase and displays on the webpage

III. ER diagram

In this ER diagram, there are two entities: Members and Firebase. Members is related to Firebase through a one-to-many relationship, where the MemberID in Members is the primary key and a foreign key in Firebase. Firebase contains the Firebase ID, which is the primary key, and the Data field, which stores the user's information.



IV. Use Case diagram



Admin
Manage Membership Add Member Update Member Delete Member