## Project 1 (Group 1):

## Augmented Reality Application to view bakery's Items

The aim of the project is to have an augmented reality application that can help the user see bakery items in augmented reality, which he/she can place in real world.

The application should show all the items in 3D which can be placed in mixed reality. Their costs, their designs, their quantity and their sizes.

The user can populate the items in mixed reality and the app should calculate the total cost.

The user should be able to order the items from the app as well.

The application should also have the capability to read markers so that they can be physically moved around to change location and orientation. This should be a mobile application only.

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## Project 2 (Group 2):

## Grocery List Maker

Based on your buying habits, this app will predict the items that you will need in the days to come and create a grocery list for you. The user will feed in data through daily purchases which this app will keep track of. Based on these purchases, this app will notify what to buy, when to buy and from where to buy. The user should be able to choose a grocery list that saves money or a list that helps him buy stuff conveniently. It should also mark the best route to make the purchases. This should be a mobile application only

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## Project 3 (Group 3):

## Credible Seller's List

An application that is very much like OLX. The difference being that when you add someone as your friend, you will need to add credibility of the person. For example, if you add your brother, then he may have the credibility of 10. The brother's friend will however have a credibility of 9 if your brother has given him the credibility of 10. This way, by coming up with your own algorithm you will create a seller's list from which you can buy items trusting the credibility of users as generated by the system. This should be a desktop and mobile application.

## Project 4 (Group 4):

## Task Management Application

The task app needs to have an intuitive interface that will make it easier for users to interact with the app and manage their tasks.

The task app must allow users to create distinct accounts and start managing their everyday tasks effectively. A user's data should only be accessible to him/her, and an authentication system needs to be in place to safeguard the account from unauthorized access or accidental login. The users should be able to distribute tasks among themselves if they are working on one big project.

The user should add individual tasks or organize multiple tasks under a single task list. The task list should have a completion bar that shows the percentage of task accomplished. Also, the user should have the flexibility to create multiple task lists and manage several tasks altogether. Once completed, users can mark a task as completed. This should be both a desktop and mobile application.

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## Project 5 (Group 5):

## Chess & Checkers game

Both singleplayer and multiplayer. Users should be able to select color of the board and pieces. They should be able to select their avatar. It should record overall standing, difficulty levels and AI to be used. It should record replays. This should be a desktop and mobile application

**Assignment #1 Details:**

You will need to hold a group meeting where you will discuss the overall idea of the project. You will brainstorm the ideas and discuss them among yourselves to come up with the overall look and feel of the project and to gain a good understanding of what you think is required by the client. A good way to start is to see the already available websites and apps that are in use.

Try to make a sense of the project and write your questions about things that you do not understand or have doubts about. We will hold an online session where you can ask all of your questions to have a good understanding of the project.

**Deliverables:**

At the end of Assignment 1, you will deliver a Requirements Document (Details will be provided) with Use-Case and Activity Diagrams made with UMLet. These will be covered when we will start UML (Most probably in Week 4)

**Assignment #2 Details:**

For assignment 2, you will work together to make a paper prototype and show all the functionalities of the project by animating them using any tool you like such as Google Photos and its Auto Awesome feature which is most commonly used.

**Deliverables:**

At the end of Assignment 2 you will submit the corrected paper prototype as an animated gif. It should cover every functionality that is possible as defined by the Use-Case Diagram.

**Assignment #3 Details:**

For assignment 3, you will work together to make a UML class diagram that covers all the topics of association, aggregation, generalization, realization and dependency. The created diagrams should follow proper UML terminologies and must be created using UMLet.

**Deliverables:**

At the end of Assignment 3 you will submit a digital prototype designed in Adobe XD and the class diagram.

**Assignment #4 Details:**

For assignment 4, you will work together to make the prototype of the working software in a language of your choice. This prototype will be based on the design that you had submitted in Assignment 3.

**Deliverables:**

At the end of Assignment 3 you will submit a digital prototype designed in Adobe XD and the class diagram. It should look very much like the digital prototype created in Assignment 3 but this time it should be properly working.

**Details about all the assignments and submission dates will be provided to you in due time.**