Using AR/VR for shopping

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Project Guide
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Introduction

- 3D Convenience store is a mobile app powered by Virtual Reality to enable advanced shopping experience.

- 3D Convenience store focuses on bringing a more practical approach to the current shopping system(2D & on-site) using 3D simulation and interaction.

- The proposed system introduces a VR based 3D Convenience store where the user can experience Real world based shopping activities Virtually from the Comforts of their home.

- This virtual Convenience store will have an easy to interact UI.

Objectives

- To advance the current Shopping system by providing user an immersive experience.

- To understand the concepts of VR and Unity and develop a prototype using the findings.

- To study and implement 3D Modelling and include it in the project.

- To create a functional application to cut down the amount of time required to search the products by suggesting relevant items to the user.

Problem Definition

- With the 2D shopping websites used today, they have their natural limitations, which is a particularly important element of shopping.

- Malls and grocery shops are closed or there are many restrictions imposed on them due to ongoing pandemic.

- Customers have to wait in long queues in order to get the tokens increasing the manual work and the amount of time.

Technological Stack

Software Requirements:

- Unity : environment for building, debugging and testing application
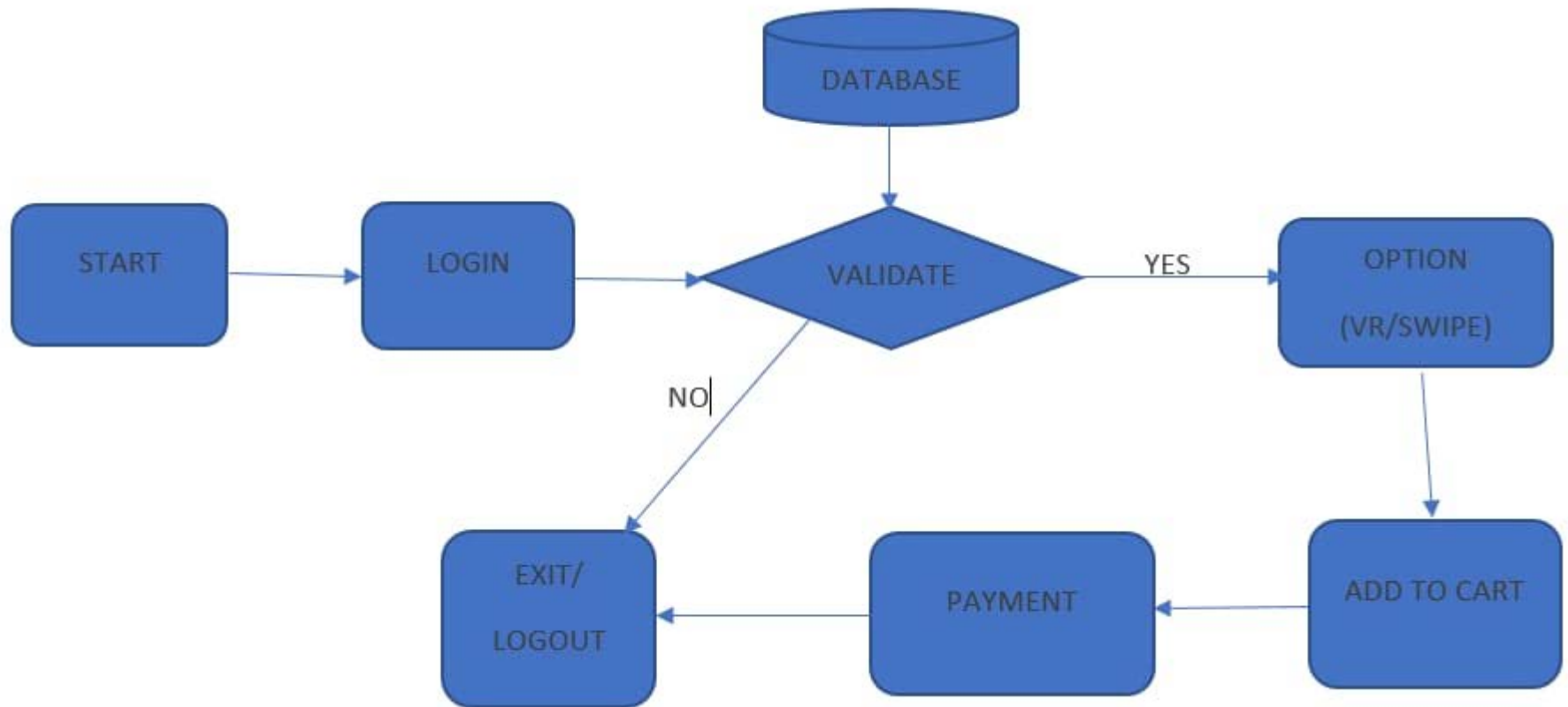
- Mongodb : for storage

- NodeJs : backend

Hardware requirements:

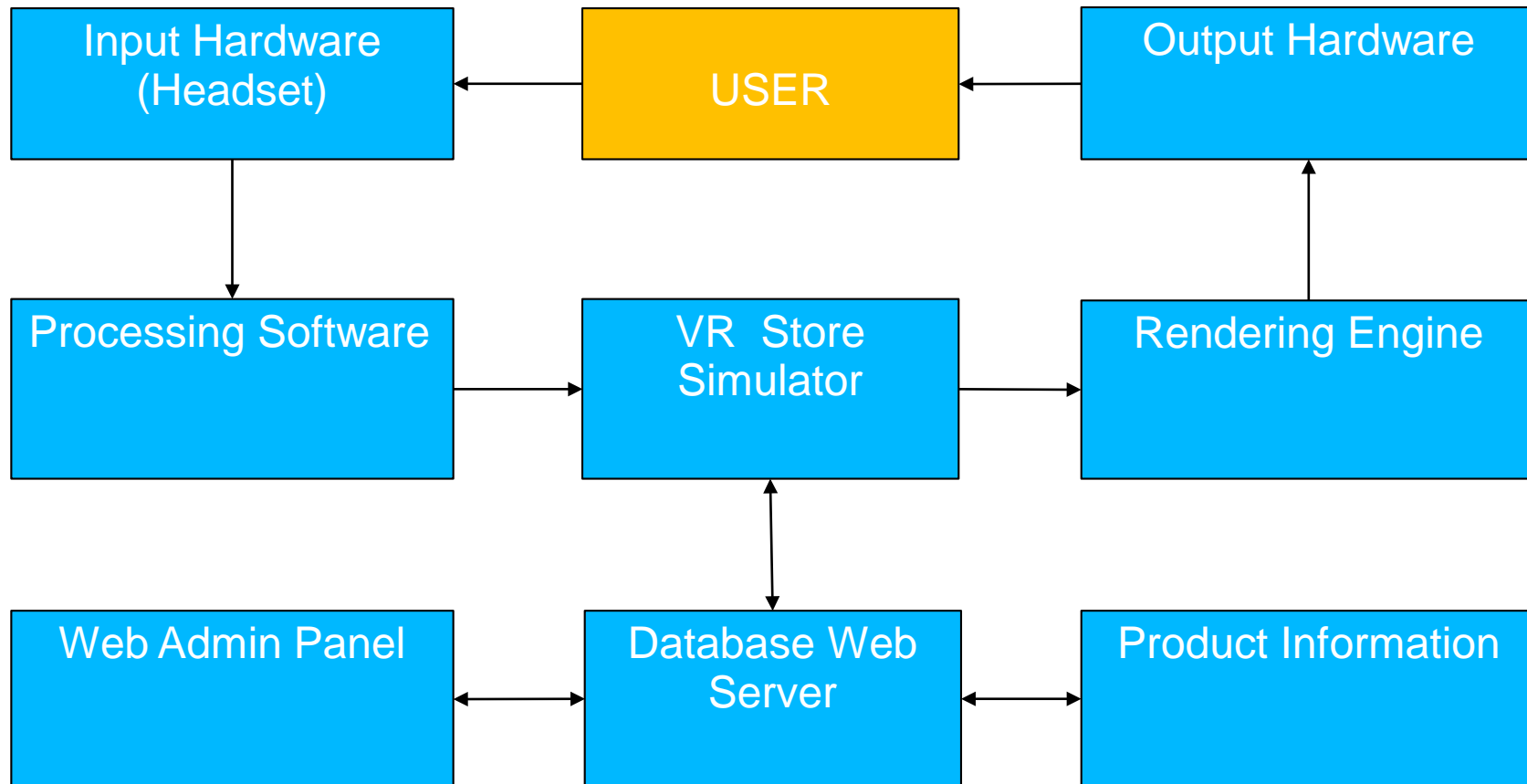- VR headset and Bluetooth controllers

Review Suggestions

- Decide if it is going to be a desktop app or a mobile app

  (Using Android store, mobile app will be developed)

- Finalize the Products range

  (This app will be focusing on all the things available in Grocery Store)

- Implement recommendation system

Proposed System Architecture/Working

DATABASE

START → LOGIN → VALIDATE

VALIDATE —YES→ OPTION (VR/SWIPE)

VALIDATE —NO→ EXIT/ LOGOUT

OPTION (VR/SWIPE) → ADD TO CART → PAYMENT → EXIT/ LOGOUT

Prototype Design Demonstration

Input Hardware (Headset)	**USER**	**Output Hardware**
Processing Software	**VR Store Simulator**	**Rendering Engine**
Web Admin Panel	**Database Web Server**	**Product Information**

Implementation Status

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Status of Paper Draft & Targeted Conference

Conference paper publication submission done.

Targeted Conferences:

- IEEE International Conference on Computational Intelligence and Computing Applications-21

https://easychair.org/cfp/IEEEICCICA21

- ICCIS 2021 International Conferene on Communication and Intelligent Systems..

Thank You...!!