UNIVERSITY OF KARACHI

DEPARTMENT OF COMPUTER SCIENCE

FORMAL PROPOSAL FOR FINAL YEAR PROJECT

Proposed Title of the Project:

Artificial Intelligence Based Outfitter Hybrid Website and Mobile Application.

Group Members:

Programme (Morning / Evening): Morning

Class (MCS / BSCS / BSSE): MCS

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Supervisor / Co-Supervisor / External Advisor:

Project Supervisor: Dr Farhan Ahmed Siddiqui

External Advisor : Mr Muhammad Qasim

External Advisor's Details:

Designation : AI and Data Science teacher at PIAIC and SMIT.

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Nature of Project (Research-based / Designing-based / Development-based):

Our project is Development-Based.

Type of Project (Hardware / Software / Hybrid):

Hybrid.

Description of Project:

This project is a Hybrid Website and Mobile Application based project which helps people to do shopping from different outlets and outfits without going there. Users can get clothes with their accurate size by standing infront of camera, hybrid system will detect size of person's shirt. This hybrid system will also show the clothes to users according to their face's color complexion, system will also give suggestions to customers by using color complexion recongnizing ability of hybrid system. This hybrid system also have a feature of shoe shopping, users will set the camera on top of their feet system will measure the size and show all the shoes of respective size, users can try any shoe of outfit or outlet , also observe the shoe from any direction. Along with these features our hybrid system also have a feature of online try glasses frame like users can select any glasses frame and try on their faces and purchase the suitable ones. To more facilitate online users , this hybrid system also have a feature of online chatting with the help of automated chatbot , users can also search all items with the help of search by voice (speech recongnization) methodology , which help special people to communicate with this hybrid system.

Abstract / Executive Summary of Project:

New shopping method with distinct advantages over traditional internet shopping can improve the administration of business websites or E-commerce systems. The broadest aspect of elective innovation based on AR Augmented reality collaborations that avoid the use of physical interaction with the product. The use of the internet for shopping has significantly over time. Augmented reality (AR) may play the most important role in improving the method of online shopping. The advancement of new AR innovation can be valuable if it can imitate features that have made web-based shopping the most preferred shopping source in current times. It is a simple method for creating a 3D model in front of an individual that can be effectively equivalent, resulting in a better impression of the item by recreating in reality. 3D models are delivered using a game engine with AR SDK in the client device, which is controlled by a number of projects written in an IDE. The implementation od AR shopping is changing internet business by assisting web retailers in decreasing the developing cost of profits and providing their clients with a more appealing and advantageous way to shop through their gadgets. Imaginative AR arrangements enable customers to see their product in

real time, from the comfort of their own home. It may also play a significant role in the industrial revolution.

Objectives / Deliverables of Project:

UI UX:
First of all, by the help of Figma software we design screens of web and mobile application. Figma is a collaborative web application for interface design with additional features enabled by desktop. It is a tool for prototyping which enables a basic web and mobile application with some sliding features like scrolling, sliding images etc.

UI UX Implementation:
In second phase, we implement the UI UX in a website view with the help of cutting-edge technology "Flutter". It is an open-source UI software development kit. In the backend of Flutter, we will use Dart programming language. We will use NoSQL Database in the backend of hybrid system.

Machine Learning Implementation:
Third phase is an important part of this project, here we will implement Augmented Reality in hybrid system with the help of Machine Learning. In Machine Learning there is a various library for Computer Vision such as OpenCV, Pytorch etc. The basic implementation of this part is face detection and measuring the size of body from a specific distance by using camera.

Chatbot:
In this phase we will use Chatbot technology in our Hybrid application to facilitate users to enhance user experience. It simulates human like conversation with the user via text messages on chat. It's key task is to help user by providing answers to their queries.

Possible Beneficiaries of Project:

- It saves time for both the buyer and retailer.
- Users can purchase from their homes, workplaces as per their comfort.
- It improves Outfitters or Outlets digital shopping system.
- Users can get shirt of their accurate size , can try glasses on face.

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Management of Project & Gantt Chart:

Tasks	Sep	Oct	Nov	Dec	Jan	Feb
UI UX designs	⟺					
UI UX implementation		⟺				
Machine Learning		⟺	⟺	⟺		
Chatbot			⟺	⟺		
Integration					⟺	⟺
Report writing				⟺	⟺	⟺

For office use only

Comments:

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Approved / Approved with minor changes / Approved with major changes / Rejected

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Signature(s) of the member(s) evaluating the Proposal: _____

Date: _____