HCI Course Project Proposal

Team IncrEDIBLES

- Sumanasa Somu - 2017A7PS0262H (Computer Science)
- Satwick Manepalli - 2017A7PS0156H (Computer Science)
- Abhishek Roy - 2017A3PS0358H (EEE)
- Rahul J S N S - 2017A7PS0262H (Computer Science)

Mobile Application for Food delivery

BITS Eats!

A food delivery android application for the eateries on the campus which has an interface for customers ordering food, and for students who are willing to deliver the food and earn some money

Motivation?

We considered three intrinsic factors, or problems while taking up this project

1) There are very less eateries in campus for a very large population depending on it.

2) Students, especially freshers in campus have virtually no ways of earning, due to the campus being far from the city.

3) The waiting time in any of those eateries is usually more than the time taken to consume the food. This further deteriorates productivity.

We have a generally gruelling course plan, coupled with an isolated campus without many food delivery options, and overworked food stalls.

To solve all these problems and much more, we could design a good delivery app that enables students to be the ones delivering their food. The problems will be solved as follows,

1) Many students will earn sufficient money due to their work, which would create wealth and add an economically dynamic environment.

2) The Time wastage would be minimal because students can just order and then continue what they were doing. The food can be delivered in flexible places as well, because it's students that deliver them, not some outsider who Doesn’t know his way around campus.

Literature Review

Apps or systems that serve comparable services like who aim to, can be found already implemented in high end restaurants. One such paper by Oshonik Kamble, PVGCOET, published in IJARCCE, explains such a system optimised for restaurant use. The method they had, was separate logins for entities like customers, sellers, admin, chef and caterers. In this system, the customers have to send a request, which has to be manually accepted by the seller. After that, the customer can access their menu. Following that, the customer can add items to their cart and buy. The admins add another level of abstraction as their permission is needed to register. The seller, chef and caterers can add dishes and approve, cook or deliver accordingly.

The problem with such a system is in the layering of abstractions that are intrinsic. The entire order has to go through a lot of unnecessary avoidable steps, our of which, if even one of the components(read persons) falls unresponsive, the entire order and subsequent ones fall through. The system is linear and one order is subject to completion of the previous one, making it useless in the large scale.

Another paper by Abhishek Singh, Aditya R and Vaishnav Kanade published in IRJET solves said problem of layering of requests by adding a GPS element that allows users to search outlets via GPS and using a combination of IoT and decentralised Geo-Hashing techniques to add more orders on the fly. But it's not optimal for our application as well, since we don't require geo location in our smaller campus, these feature is an Overkill.

Project Plan

- Requirement Definitions
  - Food Ordering
    - New Order
    - Order History
    - Order Status
    - Restaurant portfolios
  - Food Delivery
    - Orders
    - Location
  - Outlet end
    - Menu updations
    - List of orders

- Data Collection
  - Outlet Details
  - Menu
  - Images
- Mobile App Prototyping
  - Working model
- Reconnaissance Phase
  - Ease
  - Comfort
  - Intuitiveness

- UI / UX Design
  - Interaction Design
  - Interface Design
- Mobile Application Testing
- Identifying and fixing problems

Timeline

Process	Duration
Research and Data collection	1-2 weeks
Design prototyping	2 weeks
Reconnaissance	1 week
Development	2 weeks
Testing and Improvisation	1 week

End Deliverables

We expect to be able to obtain the technical and theoretical know-how to create any application that require human computer interaction. The end goal is to develop a fundamental understanding of concepts that would be useful in designing not just screen based apps, but also gesture based and voice based systems.

We aim to deliver at least the detailed front end part of our course project. In addition, we will try our best to integrate what we learnt in form of sharing ideas to be pursued later on after completion of the course in the field of new modes of HCI

Thank you!!

References

- Online Food ordering system - Journal 1
- Online Food ordering system - Journal 2