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Innoventory

Ben Diekhoff, Corbin Matamoros, Matthew Stanley, and Broday Walker

CMPS 5153, Adv Software Engineering – Dr. S. Khamaiseh

MSU TEXAS
MIDWESTERN STATE UNIVERSITY

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Introduction

I. Group members
II. Why this project?
  A. Adequate scope
  B. Decent complexity
  C. Novel topic for all of us
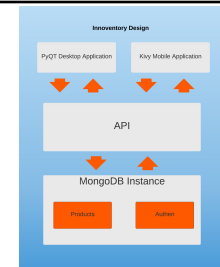 D. Builds upon knowledge from previous classes

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Project Background and Setup

I. Background / Context
  A. Established Walker as leader and customer as Dr. Khamaiseh
  B. Used Agile methodology; set sprint length and meetings
  C. Split into two groups
II. Supportive Software
  A. Frontend
    1. Mobile - Kivy and Python
    2. Desktop - Qt and Python
  B. Backend - MongoDB with Python driver, PyMongo

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Project Requirements

I. General Requirements
  A. Two platforms - mobile and desktop
  B. Needs login, search, and purchase functionality
II. Customer-related Requirements
  A. Possess an account and logged in to access the store
  B. Can search for items by name
  C. Can add any available items to their cart
  D. Can purchase all items in cart

III. Employee-related Requirements
  A. Should login from desktop app
  B. Can modify item stock (quantity and availability)

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API

Design and Implementation

I. General
   A. The API
   B. Database
II. Group Kivy
   A. Designed on computer before porting to Android
   B. Login, search, and purchasing available through buttons and text boxes

III. Group PyQt
   A. Login, search, and purchasing available through buttons and text boxes
   B. Employee functionality activated if the user is labeled as an employee in user database

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Demonstration Part I

Desktop Application

Demonstration Part II

Mobile Application

Conclusion

I. The project is 85% complete
   A. Desktop needs employee requirements fulfilled
   B. Mobile app needs shopping cart bug fixed
   C. Testing to be completed this week
   D. Documentation finished by May 5
II. Lessons Learned
   A. Remote Work/ Coordinating the team
   B. Language/Technology challenges
   C. Difficulty with making a clean, intuitive GUI
   D. Integrating the components
   E. Unforeseen circumstances - COVID-19

Project Timeline

March 9
- Requirements development
- Set final delivery date
- Proposed 10 day sprints
- Discussed where to find data
- Discussed which languages and frameworks to use

March 26
- Switched mobile development from Ionic to Kivy
- Decided on one week sprints
- Discussed desktop app development using python and HTML

April 2
- Desktop and Mobile app allow log in
- Desktop app prints search results
- Mobile app allows password change, login, and new account creation
- Decided on shopping cart schema
- Discussed GUI requirements

April 9
- Desktop app has clickable search results and item pages
- Mobile app search returns product names
- Mobile app has uniform GUI with navigational buttons

April 16
- Mobile app has clickable results and item pages
- Desktop has functioning back buttons and user account creation
- API shopping cart works

April 23
- Mobile App is feature complete aside from shopping cart
- Desktop App needs employee functionality
- Begin focus on polishing both apps

References

[1] **Kivy**: *https://kivy.org/*

[2] **Python**: *https://www.python.org/*

[3] **Qt**: *https://www.qt.io/*

[4] **MongoDB**: *https://www.mongodb.com/*

[5] **PyMongo**: *https://pymongo.readthedocs.io/en/stable/*