**CS300 - CSC13002 - Introduction to Software Engineering**

**Project Assignment 0 (PA0)**

**Group 10**

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1. **Overview**

Kryxa is an application created to help users manage an internet cafe. Vietnam is a country with a huge need for cybercafe/internet-cafe and it ranks first in South-East Asia with more than 45.000 i-Cafes, even more than Thailand, Indonesia and Philippines combined1. Therefore, we think it’s essential that a management system for internet cafes is developed to help users monitor their cafes better. Our application takes inspiration from similar apps such as Gcafe or Senet, the latter is a LAN center software for managing PCs and consoles.

Our app is a locally hosted server with web frontend intended for Windows user.There are 2 main actors/users:

* Admin/Monitor: Owners or staffs that need to manage their internet cafes
* Device users: users who need to use laptops or PCs to get access to the internet for mutiple purposes (studying, gaming,..)

1. **Key features:**
2. Admin/monitor
3. Assign PCs for user

* Create/remove PCs from the system.
* Admin chooses PCs from GUI to open a session for users.
* Sessions have a time limit and can be extended or terminated.

1. Manage items, billing for customers

* When a session is over or terminated, generate a bill for the customers.
* Add/remove/edit multiple items (session packet, food, drinks)

1. View sales, history, statistics:

* View sales for the whole cafe, for each PC, each item
* Time usage per PCs
* Graphs, visualization (potential feature)

1. Report issues, bugs:

* Create bug report

1. Create tournament for different PCs (potential feature)
2. Device user
3. Buy items:

* Food, drinks,...
* Extend sessions by buying new session packets

1. View timer for session
2. View the bill in detail
3. Report issues

* Technical issues
* Service issues

1. **Tech stack**
2. Frontend: (Lead: An (layout), Khiem (logic))

* HTML/CSS: use TailwindCSS for CSS framework
* Svelte: front-end framework

1. Backend: (Lead: Triet)

* Python / FastApi
* SQLite
* Swagger docs (for api documentation)

1. UI/UX design: (Lead: Bao)

* Figma

1. Test: (Lead: Minh)

* API test: Postman, curl
* Frontend: rice based system

1. **Future planning:**
2. 13/10/2023 - 20/10/2023:

* Complete PA0
* Setup tools

1. 13/10/2023 - 27/10/2023:

* Design data schema
* General interaction with data
* Self training
* Seminar for code training:
* 17/10/2023: Backend intro (Python, FastAPI, HTTP requests)
* 20/10/2023: Frontend intro (HTML, CSS, JS, Svelte, Tailwind)

1. **References:**

(1):“Tiết lộ: Việt Nam có tới hơn 45.000 quán net, thiên hạ vô địch ở Đông Nam Á.” *GameK*, 23 October 2018,https://gamek.vn/tiet-lo-viet-nam-co-toi-hon-45000-quan-net-thien-ha-vo-dich-o-dong-nam-a-20181023223107918.chn. Accessed 17 October 2023.