

Sleeping Application Requirements

Stakeholders: Shanshan Yu(Administrator & Programmer), Kim Nguyen(Programmer & Public Relationship), Yu-Che Liu(Programmer & Web Server), Seyoung Nam(Mascot)

Version History

| Name | Description | Date |
|------|--|------|
| 0.1 | The first Version | 3/9 |
| 0.2 | The second Version. Shanshan adjusted the due date and added more requirements features according to the app design. | 3/25 |
| 0.3 | Updated the status, and modified User Permanent data description, added Shanshan's new tasks on 3/26/2021. | 3/26 |

1. Project Description

The sleeping application will help users to build a healthy sleeping habit by playing a game.

2. Timeline

3/12 Four Core Front-end Interfaces

3/20 All Core Function Code & Interfaces

3/27 Testing & Demo

3/31 Check & Release

3. Modules

Front-end User Interface

Back-end code

App Server (Optional)

Data Analysis (Optional)

Game Module (Partial Optional)

4. Tasks

| Task Name | Description | Priority | Deadline | Member |
|---------------------------|---|----------|----------|----------|
| Front-end Interfaces-1 | The first front-end interface of the four core interfaces with a clock, sleeping time period and Alice. | 1 | 3/12 | Kim |
| Front-end Interfaces-2, 3 | The second and third front-end interface of the four core interfaces, locking the screen during sleep | 1 | 3/12 | Spencer |
| Front-end Interfaces-4 | The fourth interface of the four core interfaces, showing a gift received by the user. | 1 | 3/12 | Shanshan |
| Locking Screen Function | Locking Screen | 1 | 3/20 | Spencer |

| | | | | |
|---------------------------------|--|---|------|--------------------------|
| Gift Function | Giving Random Gift to User | 2 | 3/20 | Shanshan |
| Clock and Count Down Function | Set up Sleeping time and Connect it with Locking Function | 1 | 3/24 | Spencer |
| Clock's onClick Method | When the user click the clock, the function will invoke the lock screen activity | 2 | 3/25 | Kim |
| Merge MainPage and TimePicker | | 2 | 3/25 | Kim & Spencer |
| Game Interfaces | Simple Store and Virtual Coins | 4 | 3/25 | Shanshan |
| User Permanent Data | <ol style="list-style-type: none"> 1. Virtual Coins (int) get, set 2. Start_Time, End_Time (hours, minutes) get, set 3. Duration (hours) get set 4. Items Collection (ArrayList<Item>) get, set Average Sleeping Duration = Total durations / recorded days | 1 | 3/26 | Spencer |
| Unit Testing | Unit Test for the Merged Interface | 2 | 3/26 | Shanshan |
| Stacking Items | Stacking Items for Grid Views Update the feature in: <ul style="list-style-type: none"> - Gift Activity - Item Inventory Activity - Item Adapter - Linear item layout Add amount attributes to the Item Class | 3 | 3/26 | Shanshan |
| Data Interfaces | Data Bar Chart for every days sleeping, average sleeping time of the data | 1 | 3/27 | Kim |
| Data Analysis Feature(Optional) | Simple Chart: Option 1 Use Database and Fake Data for testing; Option 2 Store 7 Days Data in local | 4 | 3/27 | Kim |
| Integration Testing | After all core features have been developed | 1 | 3/28 | Spencer & Shanshan & Kim |
| Testing on Device | After all core features have been developed | 1 | 3/29 | |
| Fix Demo | 2 mins demo | 1 | 3/29 | |
| Submission | | | 3/30 | Shanshan Yu |

Tool

Android Studio

GitHub

Google

Stack Overflow (:D)