Report

B

of SE Project 1

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Team: Soul

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Report B

This is the first time working together as a captain in a team to develop an project for me. I dynamically learned many techniques on programming for the project. Our project is a Role playing game which is a game in which players assume the roles of characters in a fictional setting.

Throughout all of project, at the final allocation of work packages, I was responsible for work package inventory, map, io, UI, archive, algorithm and scenario. At first, I thought basic structure like inventory, map and IO were most important so I waste lots of time on them.

Work package inventory in charge of character's inventory and items. There were four class: Inventory, Item, Weapon, Armor, Food. Inventory stored items and have interfaces to get or set these items. Item have common attribute of Weapon, Armor and Food: name, description and method to get or set attributes. Weapon, Armor and Food extends item to get common attributes and add their own attributes and methods.

Work package map in charge of gamg map and fight frame. I gave map a width and a height and use an secondary array called map index to store map tiles. And then use algorithm to calculate and draw map from basic tiles.

Work package io in charge of getting input and output data. There were ActionMenu, PropertyMenu, TextObject and a WTimer. Action menu was responsible for getting user's command and doing move, attack or wait actions on player while fighting. Property menu was responsible for showing status of character like name, level, hp, mp, attack, exp and etc. TextObject was resbonsible for providing graph to both former menus. WTimer is a timer that control and switch state of character in fight. It use lots of boolean value to check state and give matched actions.

Work package UI in charge of graphical user interface. The UI is depended a StageController which control and switch different stages or frames. In StageController, it use a HashMap store all stages and stage's name as key. Log in, sign up, main stage and fight stage were all JavaFX application. LoginView and SignUpView both were depened on fxml which was depended on XML language. They were divided to implementation and styles. LoginView.css in charge of their styles. The functions include log in, sign up and conntected with database. StartFrame, MenuBar, SpriteBar, SkillBar and others were all JFrame which depended on java swing. StartFrame gave selections to start, continue or exit game. MenuBar gave selections to invoke SpriteBar, SkillBar, InventoryBar, Save or Load Bar, or Exit game. SpriteBar show detailed information of character. SkillBar show detailed information about skills. InventoryBar show items player have. Save or Load Bar could save or load game into database.

Work package archive in charge of user's account when log in game and gave unique code to character, item, map, inventory, user, skill, skill base and etc. Archive download or upload data to database. User store user's information which means that user ID and password. UserManagement could add or delete user and check user when log in and sign up.

Work package scenario in charge of story and tasks in the game. TaskController could check game and return tasks or a dialog describing detailed information. The controller use some boolean value to check game and gave matched tasks or stories what should be showed at that time.

Overall, I thought time allocation should be added on UI, scenario and database as most part in project, rather than regarded them as easy component which is only responsible for connecting basic structure. Otherwise, spending more time on requirement analysis would benefit our project developing.