FINAL Project Report
Created 2023.12.01

Group 31 Adventure Game Project

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GitLab Repository:

https://mcsscm.utm.utoronto.ca/csc207_20239/group_31.git

Project Demo:

https://clipchamp.com/watch/bEVBho9Bdfq

SECTION 1: REPORT SUMMARY

We are extending the adventure game from assignment 2. In this extension, we will be adding features to enhance entertainment and make the game more competitive. We found the older version of the game fun, but lacking in competitiveness, since users were too comfortable and did not feel challenged enough. Moreover, we will be adding additional accessibility features for the visually impaired to make this adventure game more friendly to all types of users.

SECTION 2: PROCESS DOCUMENTATION

2.1. SPRINT 1 OVERVIEW

2.1.1 Sprint Overview:
Our goal for this sprint was to get the core implementations required to move forward to more complicated implementations. The user stories we focused on in this sprint would help with entertainment aspects in the future.

2.1.2 Stories Selected for this Sprint:
- User Health by Jad (1.1)
- Colorway by Haris (1.2)
- Room Object Effects(1.3) and Hideable effect by Edward (1.5)
- NPC Behavior by Andrew (1.4)

2.1.3 Team Capacity:
User health is expected to be complete by the start of the second sprint. This is required as it will be used in collaboration with Edward's implementation of room object effects. Furthermore, it may be used by Andrew's NPC Behavior implementation.

2.1.4 Participants:
Jad → complete player health and write unit tests to make sure health works properly

Haris → worked on Colorway classes and implementation

Edward → implement interfaces to do room and object effects and hidable effects

Andrew → work on documentation and implemented NPC with its behavior

2.1.5 Tasks Completed:
- Player Health was almost fully implemented correctly, although there were a few bugs.

- Player health unit tests were written
- Room object effects interface and hideable effect completed

2.2. SPRINT 1 PRODUCT BACKLOG

- [1.2] Colorway: Haris

2.3. SPRINT 1 CODE REVIEWS

Story Reviewed	Name of Reviewer	Pull Request Link
[1.3], [1.5]: Room Object Effects Feature	Jad El Asmar, Haris Rehman	https://mcsscm.utm.utoronto.ca/csc207_20239/group_31/-/merge_requests/3
[1.1] User Health	Edward Liono Lie, Andrew Jamsa	https://mcsscm.utm.utoronto.ca/csc207_20239/group_31/-/merge_requests/1
[1.4] NPC Behavior	Edward Liono Lie, Jad El Asmar, Haris Rehman	https://mcsscm.utm.utoronto.ca/csc207_20239/group_31/-/merge_requests/8

2.4 SPRINT 1 RETROSPECTIVE

Attendees: Jad, Haris, Edward, Andrew

- Some tasks have taken longer than we anticipated to finish.
- Setting up our environment to start pushing reliable code took some time.
- Since some implementations depended on each other in the same sprint that caused some issues with time.
- Player health was successfully completed and we have tried identifying some bugs (which are now sorted).
- We collaborated well letting each other know issues, especially when reviewing one anothers code.

3.1. SPRINT 2 OVERVIEW

3.1.1 Sprint Overview:
Our goal for this sprint was to continue implementing the core implementations required to move forward to more complicated implementations. The user stories we focused on in this sprint would help with the core gameplay of the game as well as visual aspects.

3.1.2 Stories Selected for this Sprint:
- Health Bar by Jad (2.1)
- Font type by Haris (2.2)
- Room/Object Damage or heal (2.3), Random effects (2.4), and multiple effects by Edward (2.5)
- Hint by Andrew (2.6)

3.1.3 Team Capacity:
Room/Object damage or heal is expected to be completed by the start of the third sprint. Hint by Andrew is expected to be completed by the start of the third sprint. Font type by Haris is expected to be completed by the start of the third sprint.

3.1.4 Participants:
Jad → completed health bar
Haris → worked on completing ColorWay implementation and font type.
Edward → implemented damage effect, random effect, and multiple effects
Andrew → Npc core implementations, added tests.

3.1.5 Tasks Completed:
- Player Health Bar was implemented.
- Room object effect damage/heal, random effect, and multiple effects completed
- ColorWay was implemented.
- Npc core implementation completed

3.2. SPRINT 2 PRODUCT BACKLOG

- Font type (2.1)

3.3. SPRINT 2 CODE REVIEWS

Story Reviewed	Name of Reviewer	Pull Request Link
[2.3]: Room Object Effects damage/heal, [2.4] Room random effect, [2.5] Multiple effects	Jad El Asmar, Haris Rehman	https://mcsscm.utm.utoronto.ca/csc207_20239/group_31/-/merge_requests/5
[2.1] Health bar	Edward Liono Lie, Andrew Jamsa	https://mcsscm.utm.utoronto.ca/csc207_20239/group_31/-/merge_requests/4
[1.2] ColorWay	Jad El Asmar, Edward Liono Lie, Andrew Jamsa	https://mcsscm.utm.utoronto.ca/csc207_20239/group_31/-/merge_requests/9
[2.6] Hint	Jad El Asmar, Haris Rehman, Edward Liono Lie	https://mcsscm.utm.utoronto.ca/csc207_20239/group_31/-/merge_requests/8

3.4 SPRINT 2 RETROSPECTIVE

Attendees: Jad, Haris, Edward, Andrew

- Some tasks have taken longer than we anticipated to finish.
- Since some implementations depended on each other in the same sprint that caused some issues with time.
- Continued to extract and fix bugs in our completed sprints.
- We collaborated well letting each other know issues, especially when reviewing one anothers code.
- Everyone helped each other when there were problems regarding code organization and logic.

4.1. SPRINT 3 OVERVIEW

4.1.1 Sprint Overview:
Our goal for this sprint was to get most of the important extra features done, to leave time to get the integration and report in the last sprint. The user stories done this sprint expanded more the core features.

4.1.2 Stories Selected for this Sprint:
- Settings (font size) (3.1) and Game difficulty (3.2) by Jad
- Audio enable (3.3) and Settings Page View(3.4) by Haris
- Room Object Effects Factory (3.5) and inspect command (3.8) by Edward
- Time Attack (3.6) and NPC Side Quest (3.7) by Andrew

4.1.3 Team Capacity:
We expect to be able to complete the selected user stories, by the start of the last sprint. This is important because the last sprint is short and likely won't have much time to complete extra stories.

4.1.4 Participants:
Jad → implemented font size settings and game difficulty
Haris → worked on the audio settings and user setting page
Edward → implemented the effects factory and the inspect command
Andrew → finished the time attack mode and implemented side quests

4.1.5 Tasks Completed:
- font size adjustment needed and difficulty logic completed, but visual aspect not completed.
- effects factory implemented, but still needs some adjustments. Inspect command completed
- finished time attack mode, and finished a majority of the side quests
- implemented the base of the settings page view.

4.2. SPRINT 3 PRODUCT BACKLOG

- Audio enable (3.3)
- User Settings View (3.4)

4.3. SPRINT 3 CODE REVIEWS

Story Reviewed	Name of Reviewer	Pull Request Link
[3.5] Room Object Effects Factory, [3.8] Inspect command	Jad El Asmar, Haris Rehman, Andrew Jamsa	https://mcsscm.utm.utoronto.ca /csc207_20239/group_31/-/mer ge_requests/7
[3.2] Game difficulty	Edward Liono Lie, Andrew Jamsa	https://mcsscm.utm.utoronto.ca /csc207_20239/group_31/-/mer ge_requests/13
[3.1] Font Size	Edward Liono Lie, Andrew Jamsa	https://mcsscm.utm.utoronto.ca /csc207_20239/group_31/-/mer ge_requests/13
[3.6] Time Attack, [3.7] Side Quest	Jad El Asmar, Haris Rehman	https://mcsscm.utm.utoronto.ca /csc207_20239/group_31/-/mer ge_requests/8

4.4 SPRINT 3 RETROSPECTIVE

Attendees: Jad, Haris, Edward, Andrew

- Some tasks have taken longer than we anticipated to finish.
- Some features are more complex than expected, which has taken more time than expected, such as user stats.
- Continued testing and identifying bugs from previous sprints.
- We collaborated well letting each other know issues, especially when reviewing one another's code.

5.1. SPRINT 4 OVERVIEW

5.1.1 Sprint Overview:

Our goal for this sprint was to complete some small additional features and to do the integration and report. The user stories considered in this sprint were related to additional features and the previous ones that has bugs.

5.1.2 Stories Selected for this Sprint:
- Settings (font size) (3.1) by Jad, Difficulty (3.2) by Jad
- User Stats (4.2) by Haris, User Settings Page (3.4) By Haris
- Unhide hidden effects (4.3) by Edward
- NPC Side Quest (3.7) by Andrew

5.1.3 Team Capacity:

We expect to be able to complete the selected user stories several days before the submission time. We were able to detect bugs in our software and fix them all.

5.1.4 Participants:

Jad → implemented font size and difficulty in settings page.

Haris → created a setting page view to change the accessibility features of the game.

Edward → implemented a class that extends the effect interface to unhide the object's effect.

Andrew → fixed bugs encountered in NPC side quest.

5.1.5 Tasks Completed:
- font size and difficulty fully completed
- UnhideAllEffect fully implemented.
- Setting page view fully implemented.
- NPC side quest fully implemented.

5.2. SPRINT 4 PRODUCT BACKLOG

- Direction buttons (4.1)
- NPC Final Boss (4.4)
- User Stats (3.4), Audio enable(3.3)

5.3. SPRINT 4 CODE REVIEWS

Story Reviewed	Name of Reviewer	Pull Request Link
[4.3] Unhide hidden effects	Jad El Asmar, Haris Rehman, Andrew Jamsa	https://mcsscm.utm.utoronto.ca/csc207_20239/group_31/-/merge_requests/7
[4.2] Setting page view	Edward Liono Lie, Andrew Jamsa	https://mcsscm.utm.utoronto.ca/csc207_20239/group_31/-/merge_requests/11
[3.1] Font Size	Edward Liono Lie, Andrew Jamsa	https://mcsscm.utm.utoronto.ca/csc207_20239/group_31/-/merge_requests/12
[3.7] Side Quest	Jad El Asmar, Haris Rehman, Edward Liono Lie	https://mcsscm.utm.utoronto.ca/csc207_20239/group_31/-/merge_requests/15

5.4 SPRINT 4 RETROSPECTIVE

Attendees: Jad, Haris, Edward, Andrew, Akhil (TA)

- Some tasks that were chosen took slightly longer time, yet was anticipated.
- Some of the user stories were predicted to take longer than the anticipated finish time.
- We collaborated well letting each other know issues, especially when reviewing one another's code.

SECTION 3: SUMMARY

In this project we learned how to collaborate, from the first sprint to the last we improved our communication skills and were able to work more efficiently as a team. We accomplished and added the accessibility user stories, but were unable to add some intricacies we did not think about for other features. For example, player health sounds simple on paper, but adding death screens and the way to update health in real time was something we did not plan our sprints around. Ultimately, we were forced to implement the core of features and sometimes had to skip out on making them an amazing experience and instead just functional and fulfill the user story. Our great communication allowed us to move quickly and understand these issues and focus on what was truly important.