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| SOUTHERN CROSS UNIVERSITY |

**ASSIGNMENT COVER SHEET**

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| --- | --- |
| Student Name: | Margi Chandrakant Patel, Cam Chuong Lac |
| Student ID No.: | 23645112, 23686988 |
| Unit Name: | Managing Software Development Projects |
| Unit Code: | PROG6001 |
| Tutor's name: | Mr. Naveed Ali |
| Assignment No.: | 3 |
| Assignment Title: | Final Assessment (Exam Replacement) |
| Due date: | 06/06/2021 |
| Date submitted: | 06/06/2021 |

Declaration:

*I have read and understand the Rules Relating to Awards (*[*Rule 3 Section 18 – Academic Misconduct Including Plagiarism*](http://policies.scu.edu.au/view.current.php?id=00140#s18)*) as contained in the SCU Policy Library. I understand the penalties that apply for plagiarism and agree to be bound by these rules. The work I am submitting electronically is entirely my own work.*

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| Signed: | Margi Chandrakant Patel, Cam Chuong Lac |
| Date: | 06/06/2021 |

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# **Task 1**

## **Project documentation - Scrum template**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Sprint name*** | ***Sprint number*** | ***User*** | ***Stories*** | ***Status*** | ***Priority*** | ***Deadline*** | ***Completion date*** | ***Problem*** | ***Problem Detail*** | ***Solution*** |
| Add treasure room | 1 | As a player, I want to | explore more rooms | Done | 1 | 18-May | 14-May | Test case does not work => Fixed=>Test case implemented | Cannot run the test file | Update project with Maven |
| Add Armor | 2 | As a player, I want to | interact with more items | Done | 1 | 24-May | 15-May | Test case does not work => Fixed=>Test case implemented | Cannot run the test file | Update project with Maven |
| Add "unlock room" action | 3 | As a player, I want to | unlock the locked room | Done | 2 | 28-May | 21-May |  |  |  |
| Adding method comments/cleaning the code/ generate Javadoc | 4 | As a project manager/developer, I want to | have clean and optimised code, understandable documentation | Done | 3 | 31-May | 31-May | Cannot generate Javadoc with private method => Accepted | Cannot generate Javadoc for private methods | Accept |
| Provide additional information to user regarding room/item/game | 5 | As a player, I want to | have more clarity | Done | 3 | 4-Jun | 4-Jun |  |  |  |

**Table 1 Scrum Template**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Sprint*** | ***Tasks*** | ***Person*** | ***Status*** | ***Problem*** |
| 1 | List current rooms | MP, CC | Done |  |
| 1 | Decide room to be added | MP, CC | Done |  |
| 1 | Add the room | MP, CC | Done |  |
| 1 | Test rooms | MP, CC | Done | Test file does not work, error code "No test executed" => Fixed |
| 2 | List current items | MP, CC | Done |  |
| 2 | Decide item to be added | MP, CC | Done |  |
| 2 | Add the item | MP, CC | Done |  |
| 2 | Test items | MP, CC | Done | Test file does not work, error code "No test executed" => Fixed |
| 3 | List actions | MP, CC | Done |  |
| 3 | Decide action to be added | MP, CC | Done |  |
| 3 | Add Attack action | MP, CC | Done |  |
| 3 | Test action | MP, CC | Done |  |
| 4 | Design documentation | MP, CC | Done |  |
| 4 | Add comment documentation | MP, CC | Done |  |
| 4 | Generate documentation | MP, CC | Done | Cannot generate Javadoc with private Method => Accept |
| 4 | Check documentation | MP, CC | Done |  |
| 5 | Design instructions, descriptions | MP, CC | Done |  |
| 5 | Add instructions, descriptions | MP, CC | Done |  |

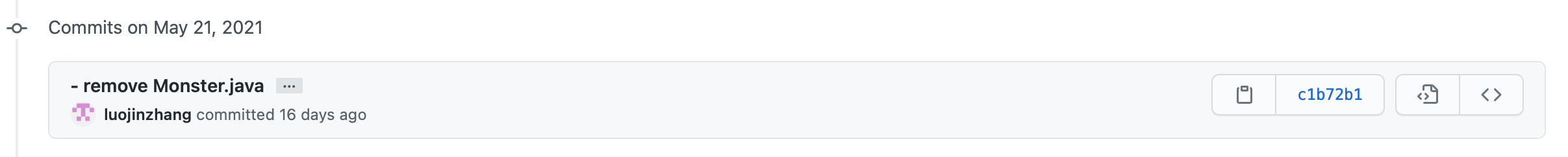
**Table 2 Scrum Taskboard**

## **Screenshots/Proofs of commits reflecting the dates of the scrum template**

A picture containing background pattern

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**EXHIBIT 1 Sprint 1 & 2**



**EXHIBIT 2 Sprint 3**

Graphical user interface, application, Teams

Description automatically generated

**EXHIBIT 3 Sprint 3 Detailed Task List**

Graphical user interface, text, application, Teams

Description automatically generated

**EXHIBIT 4 Sprint 4**

Chart

Description automatically generated with low confidence

**EXHIBIT 5 Sprint 5**

Graphical user interface, application

Description automatically generated

**EXHIBIT 6 Sprint 5 Details of Task 1**

Graphical user interface, application, Teams

Description automatically generated

**EXHIBIT 7 Sprint 5 Details of Task 2**

# **Task 2 - Java implementation of 5 objectives (sprint) as an improvement from the base code**

## **Objective 1 – Add Room**

Graphical user interface, text

Description automatically generated

**OBJECTIVE 1 Created TreasureRoom & added it**

## **Objective 2 – Add Item**

Graphical user interface, text, application

Description automatically generated

**OBJECTIVE 2 Armor Created**

Graphical user interface, text, application

Description automatically generated

**OBJECTIVE 2 Armor added in treasureRoom**

## **Objective 3 – Add "Unlock" room Method**

Graphical user interface, text, application, email

Description automatically generated

***OBJECTIVE 3 Added "Unlock" command in validCommands Array list***

Graphical user interface, text, application, email

Description automatically generated

***OBJECTIVE 3 Added "Unlock" command in processCommand***

Graphical user interface, text, application

Description automatically generated

***OBJECTIVE 3 Added unlockRoom Method***

## **Objective 4 – Adding Method Comments/Clean the code/Generate Javadoc**

Some of the screenshots cover partial changes made to the file, but the generated Javadoc and source code submitted in the Zip file covers the rest.

Graphical user interface, text, application, email

Description automatically generated

***OBJECTIVE 4 Command.java***

Graphical user interface, text, application, email

Description automatically generated

***OBJECTIVE 4 CommandWords.java***

A picture containing text

Description automatically generated

***OBJECTIVE 4 Game.java\_Partial Changes***

Graphical user interface, text, application, email

Description automatically generated

***OBJECTIVE 4 Item.java\_Partial Changes***

Graphical user interface, text, application, email

Description automatically generated

***OBJECTIVE 4 ItemCreation.java\_Partial Changes***

Graphical user interface, text, application, email

Description automatically generated

***OBJECTIVE 4 MyGame.java***

Graphical user interface, text, application

Description automatically generated

***OBJECTIVE 4 Player.java\_Partial Changes***

Graphical user interface, text, application, email

Description automatically generated

***OBJECTIVE 4 Room.java\_Partial Changes***

Graphical user interface, text, application, email

Description automatically generated

***OBJECTIVE 4 RoomCreation.java\_Partial Changes***

## **Objective 5 – Additional Information about game/room/item**

Graphical user interface, text, application, email

Description automatically generated

***OBJECTIVE 5 Command.java\_Partial Changes***

Graphical user interface, text, application, email

Description automatically generated

***OBJECTIVE 5 CommandWords.java***

Graphical user interface, text, application

Description automatically generated

***OBJECTIVE 5 Game.java – Edited Welcome Message***

Graphical user interface, text, application

Description automatically generated

***OBJECTIVE 5 Game.java – Edited printHelp Method***

Graphical user interface, text, application, email

Description automatically generated

***OBJECTIVE 5 Item.java***

Graphical user interface, text, application

Description automatically generated

***OBJECTIVE 5 ItemCreation.java – Cleaned the code***

Graphical user interface, text, application, email

Description automatically generated

***OBJECTIVE 5 MyGame.java – Updated Version***

Graphical user interface, text

Description automatically generated with medium confidence

***OBJECTIVE 5 Player.java – Edited addItemInventory Method to change the descriptions.***

Graphical user interface, text, application

Description automatically generated

***OBJECTIVE 5 Room.java***

Graphical user interface, text, application, email

Description automatically generated

***OBJECTIVE 5 Room.java – Edited getAllItems Method to change the description.***

Graphical user interface, text, application

Description automatically generated

***OBJECTIVE 5 RoomCreation.java – Edited descriptions while initialising the rooms.***

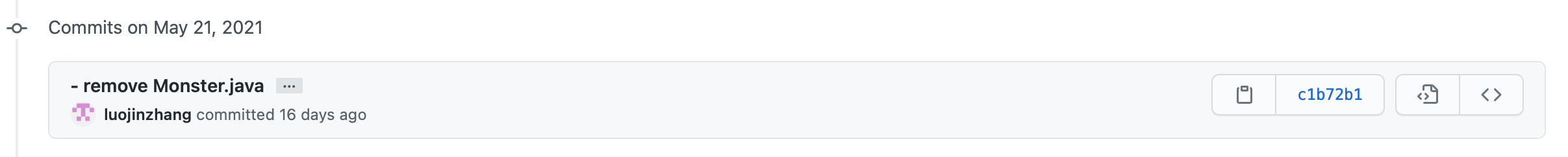
Graphical user interface, text

Description automatically generated with medium confidence

***OBJECTIVE 5 RoomCreation.java – Added the key to frontGate to allow unlock action.***

# **Task 3 - Test Cases including documentation, implementation/JUnit Tests and Test Results.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Test Case Number*** | ***Purpose of the Test Case*** | ***Deadline*** | ***Completion date*** | ***Outcome*** |
| 1 | Test Treasure Room | 31-May | 21-May | Passed |
| 2 | Test Item Armor | 31-May | 24-May | Passed |
| 3 | Test Method unlockRoom | 31-May | 24-May | Passed |
| 4 | Test addItemInventory Method | 4-Jun | 4-Jun | Passed |
| 5 | Test setExit Method | 4-Jun | 4-Jun | Passed |



Graphical user interface, application, Teams

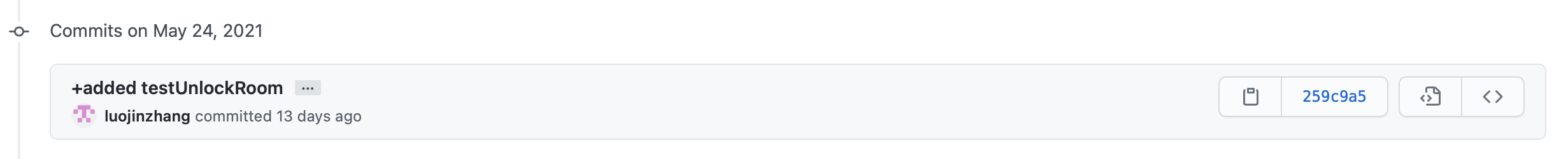
Description automatically generated

***TEST CASE 1 GameTest.java created to test Treasure Room.***

Graphical user interface, text, application, email

Description automatically generated

***TEST CASE 1 Test case written to test Treasure Room.***



Application

Description automatically generated with medium confidence

***TEST CASE 2 & 3 Edited GameTest.java to test unlockRoom Method and created ItemTest.java to test Armor.***

Text

Description automatically generated with medium confidence

***TEST CASE 2 Test case written to test Item Armor.***

Graphical user interface, text, application, email

Description automatically generated

***TEST CASE 3 Test case written to test unlockRoom Method***

Chart

Description automatically generated with low confidence

Graphical user interface, application, Teams

Description automatically generated

***TEST CASE 4 & 5 PlayerTest.java created to test addItemInventory Method and RoomTest.java created to test setExit Method.***

***Graphical user interface, text, application, email

Description automatically generated***

***TEST CASE 4 Test case written to test addItemInventory Method***

***Graphical user interface, text, application, email

Description automatically generated***

***TEST CASE 5 Test case written to test setExit Method***

Graphical user interface, text, application

Description automatically generated

***TEST CASES' RESULT – 5 Test cases passed.***

Graphical user interface, text, application, email

Description automatically generated

***TEST CASES' RESULT – Detailed Test Results***

# **Task 4 - Use of Version Control and the timeline of commits reflecting the Sprint Planning.**

The following is a screenshot of a README file developed in the GitHub Project to manage version control effectively.

Graphical user interface, text, application, email

Description automatically generated

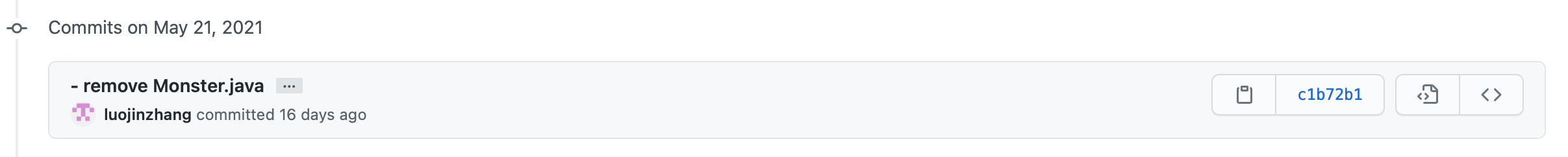
***README File used for version control.***

Some of the below screenshots show the timeline of commits reflecting the Sprint Planning and Version Control.

A picture containing background pattern

Description automatically generated

**EXHIBIT 1 Sprint 1 (Version 1), Sprint 2 (Version 2)**



**EXHIBIT 2 Sprint 3 (Version 3)**

Graphical user interface, application, Teams

Description automatically generated

**EXHIBIT 3 Sprint 3 Detailed Task List**

Graphical user interface, text, application, Teams

Description automatically generated

**EXHIBIT 4 Sprint 4 (Version 4)**

Chart

Description automatically generated with low confidence

**EXHIBIT 5 Sprint 5 (Version 5)**

Graphical user interface, application

Description automatically generated

**EXHIBIT 6 Sprint 5 Details of Task 1**

Graphical user interface, application, Teams

Description automatically generated

***EXHIBIT 7 Sprint 5 Details of Task 2***

# **Task 5 – HTML Documentation**

Instead of providing a series of clear and readable screenshots, as per Nigel's suggestion, we have generated Javadoc PDF documents submitted along with a Zip file and placed them under a folder named" Final Documentation/MyGame Javadoc". Nigel wanted Class overview, Game Class, Room Class and Item Class (He posted an announcement on the Discussion Board), but we have generated Javadoc for each class.

Please note that we have written method comments even for private methods in the source code, but they will not be visible in Javadoc (Nigel is aware of this issue).

Some of the tags used in Javadoc files are explained below:

|  |  |
| --- | --- |
| ***Javadoc Tag*** | ***Description*** |
| @author | A code contributor who made a significant contribution. Only at the level of the class, package, or overview. |
| @version | Represents the version of the code. Only at the level of the class or interface. |
| @param | A parameter that the Method or constructor accepts. |
| @returns | What the Method returns. |
| @see | Creates a see also list. It links the content, which can be viewed using the provided link. |

# **Additional Details**

* Three feedback given at the interview and the way we have implemented them:

1. **Add meeting documentation in the appendix**: We have created a folder named "documentation" in GitHub Repository to store meeting details in Docx format.
2. **Explain the code changes by putting the necessary comments:** Added in-line comments to all the code changes implemented by us.
3. **Mention how the problems were resolved in Scrum Template:** Created Solution Column to record how we solved the problem in Scrum Template.

* The link to GitHub Public Project:

<https://github.com/luojinzhang/PROG6001_Assignment.git>

* We are a team of two and have done the work together in Zoom meetings:

|  |  |
| --- | --- |
| ***Team Member Name (Student ID)*** | ***% of Work Done*** |
| Margi Patel (23645112) | 50% |
| Cam Chuong Lac (23686988) | 50% |