FIT3077 Sprint 1

Team Information

Name: **Powerpuffgirls**
Group photo:

List of members

1. Ong Jing Wei (Left)
2. Lok Mei Hui (Middle)
3. Hansikaa Aggarwal (Right)

1. Ong Jing Wei

a. Contact Details

Student ID: 32909764
Contact: +6012-7018833
Email: jong0074@student.monash.edu

b. Technical and professional strengths

i. Programming Proficiency:

I possess strong coding skills in Python, Java, and C. My ability in developing clear, effective code in these languages has been proved through a variety of academic assignments and personal interests.

ii. Agile Methodologies Experience:

Having experienced Agile methodologies firsthand, I once served as a Scrum Master, where I facilitated meetings and ensured constant progress tracking. This role helped me strengthen my leadership and organisational abilities while encouraging productive teamwork.

iii. Version Control Proficiency:

With extensive experience in collaborative projects, I'm skilled at using version control systems such as Git. Utilising Git, I have effectively managed codebases, facilitated collaboration among team members, and ensured version control integrity.

iv. Effective Communication and Collaboration:

Actively participating in meetings, I prioritise open communication and respect for diverse viewpoints. As a team player, I ensure that all voices are heard, actively engage in discussions, and provide support to team members, promoting a collaborative and inclusive environment.

v. Object-Oriented Programming Proficiency:

I possess a strong foundation in object-oriented programming (OOP), which I have applied in various projects, including developing a game engine. This proficiency allows me to design and implement scalable, modular solutions while adhering to OOP principles.

c. Fun Fact

I can't live without breathing

2. Lok Mei Hui

a. Contact Details

Student ID: 33458715
Contact: +6018-3939698
Email: mlok0006@student.monash.edu

b. Technical and professional strengths

i) Programming skills:

Proficiency in programming languages such as Python, Java and Visual Basic for Application(VBA) has been demonstrated through assessments, showcasing the ability to write efficient and clean code.

ii) Version Control:

Experience with version control systems like Git for collaborative development and code management. With git, I have gained proficiency in effectively managing code repositories and this fosters quality assurance within software development projects.

iii) Communication and Collaboration:

Excel in delivering complex ideas and actively listening to others. Leveraged collaboration tools like WhatsApp and Google Docs effectively to enhance teamwork and project efficiency.

iv) Visual Effect Proficiency:

Good at using 3D software like Maya that empowers me to bring forth imaginative and visually stunning creations, which ensure my capability to play a pivotal role in projects requiring advanced visual effects expertise.

v) Experience in Agile Methodologies:

I have some experience in approaching an agile framework based on past units, where changes and refination of the requirements are required . Thus, I believe that this iterative process not only sharpens technical skills but also fosters adaptability and resilience in the face of uncertainty.

c. Fun Fact

I enjoy eating kimchi with oats

3. Hansikaa Aggarwal

a. Contact Details

Student ID: 33382409
Contact: +6011-35485095
Email: hagg0001@student.monash.edu

b. Technical and professional strengths

i) Programming skills:

I have a thorough understanding in programming languages such as Python, Java and concepts of web development. I have consistently showcased my ability to write efficient and clean code in these languages. My skills have been evident in my performance on previous assessments and projects.

ii) Communication and Collaboration:

I exhibit strong communication and collaboration skills when working in a team. I actively participate in team meetings and share my ideas with the team. I also ensure that all team members are heard and then collectively arrive at a final decision to foster a cohesive team atmosphere.

iii) Experience in Agile Methodologies:

Having worked with agile frameworks, I am familiar with adapting and changing requirements, frequent team meetings and iterative development cycles. This background will enable me to be flexible and adaptive for the team's benefit and progress.

iv) Version Control Proficiency:

Have experience with version control systems such as git for collaborative projects. I have gained proficiency in organising, tracking and seamlessly collaborating with the changes in code.

v) Object Oriented Programming Proficiency:

I am skilled in Object Oriented Programming (OOP), demonstrated by my ability to create scalable solutions. I have applied my knowledge of OOP in previous projects and assignments.

c. Fun Fact

I enjoy travelling!!

Team Schedule

Date	Time	Location	Team member	Workload Distribution
6th of March	2pm-3pm	Monash University	1.Ong Jing Wei 2.Lok Mei Hui 3.Hansikaa	Discussed about the user stories that are essential for the Fiery Dragon Game. To ensure equitable task allocation, we decided that each team member would be responsible for generating a minimum of 6-7 user stories tailored for both player and developer personas.
13th of March	2pm-3pm	Monash University	1.Ong Jing Wei 2.Lok Mei Hui 3.Hansikaa	Created a basic UI prototype for the Fiery Dragon game and discussed the various features that will be incorporated into the game, ensuring clarity and alignment of our objectives. To effectively manage the workload, we divided the required features among team members, assigning each member the responsibility of creating two pages for the UI prototype.
15th of March	7pm-8pm	Zoom Meeting	1.Ong Jing Wei 2.Lok Mei Hui 3.Hansikaa	We conducted a thorough review of the answers proposed by each team member to ensure accuracy and relevance.
20th of March	2:15pm-3:20pm	Monash University	1.Ong Jing Wei 2.Lok Mei Hui 3.Hansikaa	We discussed the domain entities required for the Fiery Dragon game and the relationships between them. To ensure a balanced workload distribution, we divided the task by allocating specific entities to each team member. Each member was tasked with justifying their assigned entities, ensuring clarity and alignment with the project's objectives.
22nd of March	3:30pm-4:35pm	Zoom Meeting	1.Ong Jing Wei 2.Lok Mei Hui 3.Hansikaa	Discussed any necessary adjustments or improvements before finalising the answers.
26th of March	12:00om-1:00pm	Monash University	1.Ong Jing Wei 2.Lok Mei Hui 3.Hansikaa	Ensure all tasks are completed and address any remaining issues or concerns regarding the domain model. We also finalise the domain model justification before submission.

Task Allocation

For workload distribution and management within our team, we'll start by analysing all tasks and estimating their difficulty based on complexity and expected duration. This difficulty score will guide task allocation, ensuring fairness among team members.

Task allocation will occur during our weekly meetings. We'll use a Google Doc in Google Drive to list all allocated tasks for each member. Google Drive will serve as our document storage hub for reports and other related documents. This approach ensures transparency and accessibility for everyone involved.

WORKLOAD	DISTRIBUTION
Team info	Ong Jing Wei -personal info -team schedule -task allocation -technology stack and justification: Final Deliberation Python and PyQt Lok Mei Hui -personal info -team schedule -task allocation -technology stack and justification: Java and Java Swing Hansikaa -personal info -technology stack and justification: Git Google Drive
User stories	Ong Jing Wei - 5 user stories for Player persona - 2 user stories for Developer persona Lok Mei Hui - 6 user stories for Player persona - 1 user stories for Developer persona Hansikaa - 3 user stories for Player persona - 4 user stories for Developer persona
UI prototypes	Ong Jing Wei -gamepage

	-returning to its cave after one complete round -winning situation(description) Lok Mei Hui -homepage -backward movement -winning situation(drawing) Hansikaa -forward movement -landing on volcano card with another token -winning situation(description)
Domain model	Ong Jing Wei -board with volcano card and dragon card -player with dragon token -animal with dragon token and cave Lok Mei Hui -board with cave and player -animal with spider, bat, baby dragon and salamander -animal with dragon card and volcano card Hansikaa -dragon card with pirate dragon -dragon token with cave -player with dragon card
Domain model justification	Ong Jing Wei -Relationship -Discarded Alternatives Lok Mei Hui -Relationship -Cardinality Hansikaa -Entities -Relationship -Cardinality

Technology Stack and Justification

Programming language and API

1. Java and Java Swing
2. Python and PyQt5

Technologies

1. Git
2. Google Drive

Java and Java Swing

Java is a popular programming language that is well-known for its strong typing, platform independence, and wide library support. It is widely used for developing desktop, online, and mobile applications, among other kinds of applications. One of the key features is that Java supports modular and reusable code by adhering to the object-oriented programming paradigm. It also provides a rich set of APIs and libraries for tasks such as networking, GUI development, and database access.

Java Swing is a Java GUI toolkit and widget library that enables programmers to design complex desktop graphical user interfaces. It offers a complete variety of layout managers and components for creating user interfaces. Java Swing is also platform-independent and lightweight, enabling fast and efficient GUI development.

Python and PyQt5

Python is a high-level programming language that is well-known for its simplicity, versatility, and readability. As it places a strong emphasis on productivity and code readability, making it popular among developers for a wide range of applications. It is a great option for beginners and experienced developers due to its straightforward syntax and dynamic typing.

With the PyQt5 set of Python bindings for the Qt framework, programmers may use Python to create powerful graphical user interfaces for cross-platform desktop applications. PyQt5 is an effective tool for GUI creation since it easily integrates with the Qt framework and gives users access to a wide range of GUI tools and components. PyQt5 is a great choice for developers who want to easily construct feature-rich desktop apps because of its cross-platform compatibility and Pythonic API.

Git

Git is chosen as our version control system due to its widespread usage, simplicity, and feature-rich functionality. Our team can efficiently collaborate on code development, monitor modifications, and properly manage project versions with the help of it. Git enables team members to work together simultaneously on separate project branches, merge changes easily, and settle conflicts quickly. Because it is distributed, all teammates are given a copy of the whole project history, which offers flexibility and resilience in the case of server or network failures.

Google Drive

Google Drive is chosen as our document storage solution due to its collaborative features, accessibility, and user-friendly interface. Project-related documents such as team information, meeting minutes, and draft for UI design can be stored, organised, and shared with this platform. Google Drive facilitates flexible and remote collaboration by enabling team members to easily see and modify documents from any device connected to the internet. Multiple team members can work on the same document at once due to its real-time collaboration features, which promote effective teamwork and minimise version control problems.

Final Deliberation

For our final decision on the programming language and API, our team has decided to use Java and Java Swing for our project. We have a strong background in Java programming, which will make it easier for us to implement the game logic and mechanics. Additionally, we have previously used Java when learning object-oriented programming, so we are already familiar with its syntax and structure. This familiarity with Java will streamline our development process and enable us to create a robust and efficient solution for our project.

We have decided to utilise Java Swing for our project's graphical user interface (GUI) development. Although our team hasn't directly worked with Java Swing before, we've chosen it for its proficiency in building desktop GUI applications. Java Swing offers a diverse array of GUI components and functionalities, which are crucial for crafting the visual elements of our game. This choice aligns with our project's requirements and ensures that we have the necessary tools to create an engaging and interactive user experience for our game.

Our team is unfamiliar with Java Swing, thus we expect to run into difficulties and complexities during the implementation phase. We acknowledge that there might be intricacies and issues particular to Java Swing that we might need assistance with, even though we are confident in our ability to pick up and adjust to new technologies. In order to

help us overcome any obstacles and make sure we use Java Swing efficiently in our project, we therefore hope to gain from the knowledge and assistance of the teaching team. Your aid will be crucial to our success in overcoming any challenges and ensuring that our graphical user interface is implemented successfully.