MONASH University

ENGINEERING

SPRINT 1

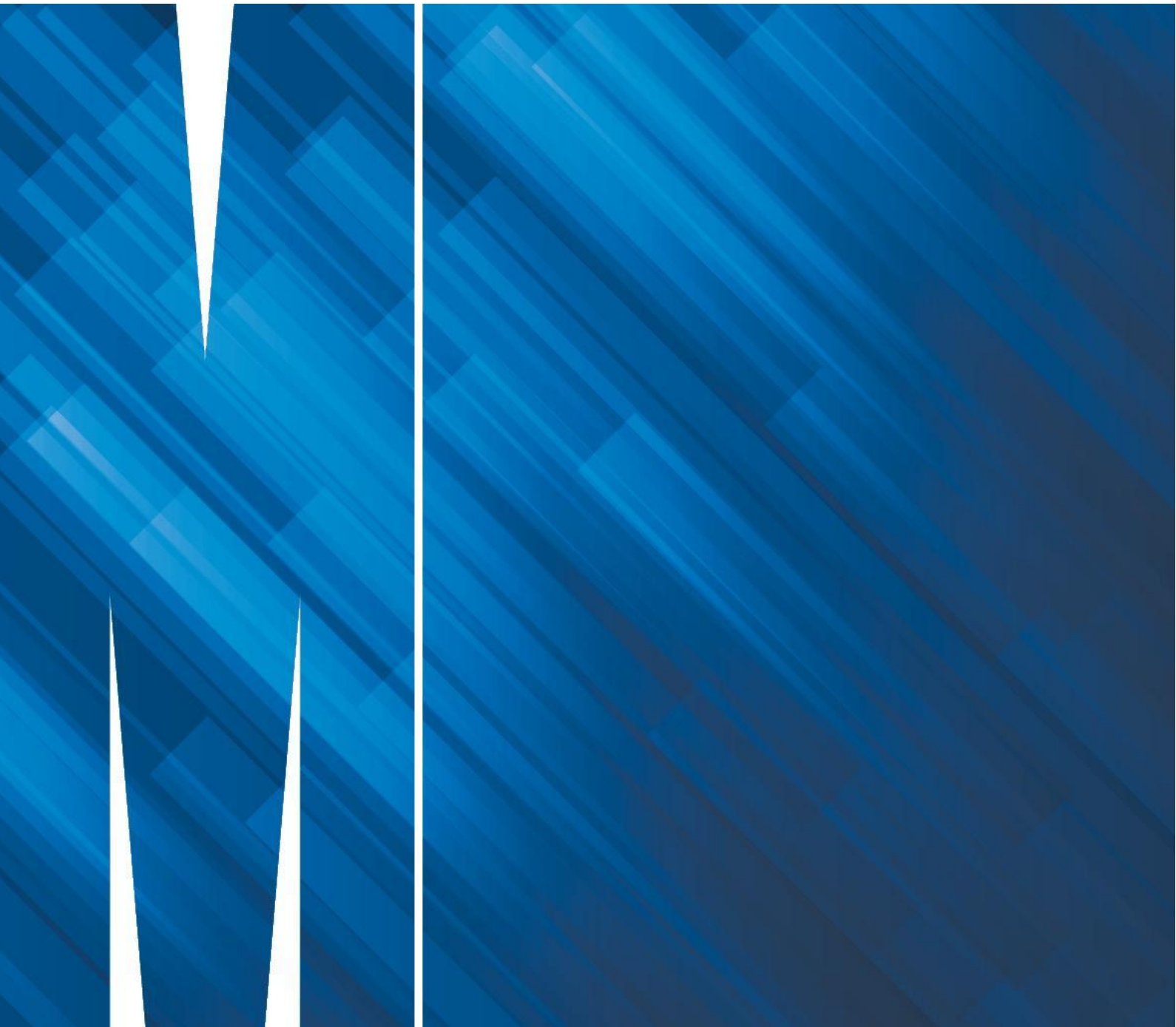

TABLE OF CONTENTS

1 TEAM INFORMATION **4**

1.1 Team Name and Team Photo 4

1.2 Team Membership 4

1.3 Team Schedule 4

1.4 Technology Stack and Justification 4

2 USER STORIES **5**

User Stories (Basic and advanced requirements) 5

3 BASIC ARCHITECTURE **6**

Domain Model 6

Rationale 6

4 BASIC UI DESIGN **7**

Low-Fidelity Prototype Drawings 7

5 APPENDIX **8**

1. **Team Information**
   Document the following pieces of information related to your team.
   - Team Name and Team Photo
     - Come up with your own personal team name. Your team name must be professional. The name of the team you belong to in Moodle (with the format <campus>_<workshop session>_<team number>) is not an acceptable team name for this task.
     - Your team photo must not be edited/photoshopped. All team members in an on-campus group must be present together physically at the time of taking the photo. For online groups, a Zoom team photo is accepted. Team photos via Zoom will not be accepted for on-campus groups.
   - Team Membership
     - Document the basic information of each team member - for example name and contact details.
     - List out what the technical and professional strengths of each member are.
     - Provide a fun fact about each member that not many people know about.
   - Team Schedule
     - Document your team's regular meeting schedule and regular work schedule.
     - Document how the workload will be distributed and managed within your team.
   - Technology Stack and Justification
     - Document what programming languages, APIs, and technologies are you planning to use and how this maps to the team's current expertise, and which ones you anticipate needing support from your tutors with.
     - Justify your team's final choice of technologies that will be used.

2. **User Stories**
   Submit a list of user stories (e.g., 10 to 25 stories) that covers both the basic 9MM gameplay and the chosen advanced requirements specified above. A majority of the user stories are expected to be devoted to the basic requirements for the Basic prototype.
   If your group consists of 4 members, your user stories must also cover the additional advanced requirement.

3. **Basic Architecture**
   Design and draw a domain model that covers both the basic 9MM gameplay and the chosen advanced requirements specified above.

   Provide detailed justifications for the domain model that you come up with, with a focus on the following aspects:
   - Rationale for each chosen domain and their relationships (if any)

- Were there any design choices that you had to make while modelling the domain and WHY?
- Explain any assumptions you have made, as well as any other part of your domain model that you feel warrants a justification as to WHY you have modelled it that way.

If your group consists of 4 members, your domain model and justifications must also cover the additional advanced requirement.

4. **Basic UI Design**

   Draw low-fidelity (low-fi) prototype drawings of the proposed user interface for the application. The low-fi prototypes need to demonstrate both the basic 9MM gameplay and the chosen advanced requirements specified above. The prototypes should cover all the key interaction scenarios, e.g. initial board, placing tokens, moving tokens, 'flying', forming a mill (win condition), and the advanced feature of your choice. This can be achieved in one large drawing space or across multiple pages. Avoid redundancy, i.e. do not create multiple prototypes for the same interaction. All drawings should be large and clear enough to understand and any writing should be legible. You may use pen and paper, or digital drawing tools. If your group consists of 4 members, your lo-fi prototype drawings must also cover the additional advanced requirement.

   If your group consists of 4 members, your lo-fi prototype drawings must also cover the additional advanced requirement.

1 TEAM INFORMATION

1.1 Team Name and Team Photo

Team Name: Brewing Java
Team Photo:

1.2 Team Membership

Name	Email	Technical & Professional Strengths	Fun Fact
Fong Zhiwei	zfon0005@student.monash.edu	Object-oriented design	Night Owl
Kennedy Tan	ktan0087@student.monash.edu	Software development methodologies	Speak 5 languages
Soh Meng Jienq	msoh0007@student.monash.edu	UX design	

1.3 Team Schedule

Our team decided to have a regular meeting every weekend. A discussion will be made in WhatsApp group to confirm the meeting daytime and agenda on every Friday. The meeting will be held on Discord and one of the members will be responsible to note down a meeting minute. It will record the meeting content and it will be very useful if any of the members is not available for the meeting and for members to check on the details in the meeting.

The work will be allocated by the leader, and everyone in the team must agree upon the distributed tasks. Trello will be used to track the progress of each member, and the leader will check it periodically. If any of the members falls behind on his/her tasks, the leader will split the task to smaller tasks, and allocate other members to help.

1.4 Technology Stack and Justification

- Document what programming languages, APIs, and technologies are you planning to use and how this maps to the team's current expertise, and which ones you anticipate needing support from your tutors with.
- Justify your team's final choice of technologies that will be used.

2 USER STORIES

Submit a list of user stories (e.g., 10 to 25 stories) that covers both the basic 9MM gameplay and the chosen advanced requirements specified above. A majority of the user stories are expected to be devoted to the basic requirements for the Basic prototype.

User Stories (Basic and advanced requirements)

- As a user, I want to have a tutorial mode in the game, so that I can learn how to play the game.
- As a user, I want to have hints of all legal moves, so that I know where to place the next piece.
- As a user, I want to be unable to make an illegal move, so that I cannot cheat in the game.
- As a user, I want my piece to have a different design than my opponent's piece, so that I can differentiate my piece from my opponent's piece.
- As a user, I want to be able to remove one of my opponent's pieces when a mill is achieved, so that I can increase my winning possibility.
- As a user, I want to move my piece to an adjacent point after 18 pieces have been played, so that I can make a mill.
- As a user, I want to know the result of the game, so that I know who wins the game or it is a draw.
- As a user, I want to know the amount of remaining pieces, so that I can plan my future moves easily.
- As a user, I want to place one piece at a time onto the board, so that the players can take turns to play all their pieces.
- As a user, I want to be able to place my piece only on an empty place, so that it is only possible to only have a single piece in one spot on the board.
- As a user, I want my opponent to not remove any pieces that I formed as a mill, so that I can protect my mills on the board.
- As a user, I want to be able to move my piece to any empty intersection without the limitation of only moving to an adjacent dot after one of the players has been reduced down to the last 3 pieces, so that the match can be more intense.
- As a user, I want the game to end when either of the players has no possible move or has reduced to only 2 pieces on the board, so that I can quickly start a new match.
- As a user, I want to have 2 players in a single game so that I can play the game with an opponent.
- As a user, I want to be able to restart the game, so that I can start a new match anytime.
- As a user, I want to be able to exit the game, so that I can stop playing at any time.

3 BASIC ARCHITECTURE

Domain Model

Design and draw a domain model that covers both the basic 9MM gameplay and the chosen advanced requirements specified above.

https://lucid.app/lucidchart/72bd3d5f-67f6-485c-8377-ad7802a7a456/edit?viewport_loc=-108%2C-155%2C2219%2C1097%2C0_0&invitationId=inv_ca1797a5-fe22-4640-8cd0-134bc8e9cfe4

Rationale

Provide detailed justifications for the domain model that you come up with, with a focus on the following aspects:

- Rationale for each chosen domain and their relationships (if any)
- Were there any design choices that you had to make while modelling the domain and WHY?
- Explain any assumptions you have made, as well as any other part of your domain model that you feel warrants a justification as to WHY you have modelled it that way.

4 BASIC UI DESIGN

Draw low-fidelity (low-fi) prototype drawings of the proposed user interface for the application. The low-fi prototypes need to demonstrate both the basic 9MM gameplay and the chosen advanced requirements specified above. The prototypes should cover all the key interaction scenarios, e.g. initial board, placing tokens, moving tokens, ‘flying’, forming a mill (win condition), and the advanced feature of your choice. This can be achieved in one large drawing space or across multiple pages. Avoid redundancy, i.e. do not create multiple prototypes for the same interaction. All drawings should be large and clear enough to understand and any writing should be legible. You may use pen and paper, or digital drawing tools.

Low-Fidelity Prototype Drawings

https://www.figma.com/files/team/1222773496085811278

5 APPENDIX

https://trello.com/invite/fit3077projectteam5/ATTI21546b8b95c34e8b34940514e6b46c28AF377C75