**TRANSCRIPT**

**INTRODUCTION (Ngọc):**

*Slide 1:*

Good morning everyone, I appreciate you taking time from your busy schedule to be here today. We are Floop Team, which includes 5 members, those are … . Everybody here is almost familiar with Monopoly, right? Today, our team will bring you a game that adapts from the original rules of Monopoly in VietNam, but it is redesigned based on the theme of the galaxy and outer space. Our speech has been divided into 6 parts, which are the introduction, methodology, demo result, installation, contact, and acknowledgment. Should you have any questions, please feel free to give questions at the end of our presentation.

*Let’s begin with the project’s purpose.*

The project's purpose is to bring players a game that contains both entertainment and educational features. To be more detailed, the house and hotel in the original version have been changed to various planets in the universe. Following that, each planet has been equipped with information about some of its special features. Therefore, players can easily gain knowledge while they enjoy the game.

We have taken a look at our team’s purpose, now, those are the tools that have significantly supported us in the project. About the IDE, our team decided to choose IntelliJ, a convenient tool that is easily connected to GitHub for remote working, and GitHub is also the main tool for teamworking. Moreover, Notion and MS Team support our team to divide and manage tasks reasonably, besides Visual Paradigm Online, a tool for UML writing.

*Next, my teammates will help us to take a deeper look insight the game.*

**METHODOLOGY:**

* DESIGN (Kiệt):

Thank you Ngoc for the amazing introduction. Now, I’m gonna talk about our game’s design.

Firstly, let’s start with the UI/UX. The UI/UX has always been our first concern before actually playing the game, so we must much of inspiration from others and produced our layout.

With a twist from the Universe theme, we focused on changing 3 things: the avenue is replaced by planer, the introduction of MANA system and completely new galaxy exclusive contents. To prepare for a theme redesign, we must go through 3 steps, which are:

1. Research on the information of the planets, including its properties such as distance to Earth, its unique sights and many more.
2. Create a property theme based on the original ones.
3. Team members feedback and modifying until we found the best combinations of color and design pattern.

In specific, each component we have redesign includes: Cards in game, Game Board, Welcome Screen, Player’s token, Dice and Board Interface.

To ensure the game is played as we intended, the client's screen resolution must be 1920x1080. Otherwise, the game will break. In addition, the UX of the game was also our big concern since we have little knowledge about it, but we managed to do it for user actions like:

* Menu and Help screen
* Buying properties
* Paying rent
* Buy/Sell/Mortgage
* Roll the dice
* The ability to show which planet that player owned using color bars

As we have tried our best, some of the game functions are not running smoothly as we expected them to, but we will be doing more research to better provide the UI/UX of this game in the future.

Move on to the second part, the algorithm. After a tremendous amount of time of repeating code and debugging, we have the final project structure like the image

We can group our classes into a specific groups, such as:

* Card: which contains parent class Card, its subclass ChanceCard, FortuneCard to extends, and DeckOfChanceAndFortuneCards to hold the information of the cards.
* Planet: contains PlanetProperties and RentValues classes to hold the planet's information.
* Player: contains Player and Monopoly classes to keep the player info and initialize the game.
* Main: contains Sound, Main, Help, and Menu to deal with game windows for the user to interact.
* RULE (Diệu):

*Thanks Kiet for providing us with interesting information about design. Now, let’s focus on the game rules.*

Our game rules have been adapted from the original game rules, some main points are displayed as below:

* **OBJECT** of the game is to become the wealthiest player through buying, renting, and selling property.
* **INITIAL MONEY** all players will start with ₲1,500 and 100 MANA.
* **THE GAMEPLAY** each player take turns to roll the dice, and move your spacecraft as shown on the dice, then you can perform other tasks like *build, sell, mortgage* and *rent*, then finish turn and pass to others turn.
* **PASSING STARTING POINT** you receive ₲200 for each time .
* **BUYING PROPERTIES** you must pay the actual amount shown on the planet or rejected to buy if the conditions are not met (i.e.. not enough money, not available).
* **CHANCE AND FORTUNE CARDS** follow the direction on the card, however, you may keep the "*RESTORING SPACECRAFT CARD*" for yourself to use.
* **ALPHA JUMP/ LOST CONNECTION** you must pay the amount shown on the board to restore your spacecraft to normal state.
* **COLLIDING** when go to the space marked, draw the card or throwing 3 times double in a row, you will be sent to the International Space Station.
* **COLLIDING RULES** no rents are collected during this state, and you can pay ₲50 to restore your spacecraft at the ISS .
* **RESTORING SPACECRAFY** by throwing a double, pay the ₲50, or use "*RESTORING SPACECRAFT CARD*" to restore.
* **REFUELING** your MANA will restore to the maximum it can held.
* **PLANET UPGRADE** must be done evenly on each property in a color group.
* **DOWNGRADE COST** you only receive 50% the purchase price when downgrade the specified planet.
* **MORTGAGE PLANET:** that is to receive the amount bought and to *unmortgage*, pay 10% fee from the original price.
* **DECLARE BANKRUPT** when either you cannot pay the owe, your properties will transfer to your lender, but he/she must pay 10% loans free on each planet.
* UML (Diệu):

Our team has provided an UML Diagram for better understanding our game structure and algorithms, the figure below shows UML of the whole project...

For the scope of Card, there are 2 classes: ChanceCard and FortuneCard, which inherit from the parent class Card.

**RESULT (Quân)**

**CONCLUSION (Tú)**

Well, that brings us to the end of our presentation, let me just run over some key points again. We have just completed a game that covers most of the important qualities and principles of OOP. Therefore, we can have a better understanding of the four features, as well as the SOLID principles of OOP. Obviously, the feature of Encapsulation is the most popular, which has been discussed in most of the project’s classes. Moreover, the Card class is where Inheritance, Abstraction, and Polymorphism being applied the most frequently. Thus, this project is a precious opportunity for all team members to work on, for gaining more experiences in reality, which is also the core knowledge that supports our future career as an IT student.

In the future, the team would like to develop a trading feature to control buying and selling among players. Additionally, we will try to add Mana bars and shop to help players evaluate their management skills. According to that, Mana bar will be applied as a trading unit to display the current energy level of each player. Furthermore, a PvP battle will be played in-game for utilizing the positions in the two-level set with a direct impact on dice rolling will also be applied in future updates. Hence, we are highly appreciated any new commitments for developing the game in the near future. *Thank you for your attention, please feel free to ask if you have any questions for our game.*