Proposal

Team name: Sudo

Project name: Ice Battle

Team member:

Ziwen Wang: 101071063

Lilian Wang: 101087269

Liyongshi Chen: 101022029

Ruonan Li: 101058609

Ice Battle is a co-op mobile game that supports 2 to 4 players to play on the same screen. This game uses several elements of a survival game with last-man-standing gameplay. It is a good choice to be an icebreaker during party time. We try to use some funny characters to make people laugh, such as cute roles, friendly interfaces, and punishment for the loser.

Nowadays, people become indifferent and always do their own stuff on the phone during the party time. Social communication is getting hard and meaningless right now. When people don't know what kind of topics can be discussed, the atmosphere is always silent and awkward and some people want to leave as fast as they can. This project is designed to help people get closer to each other instead of having fun alone. We are trying to use funny characters and game modes to narrow the distance between people, and it is a good icebreaker when people are not familiar with each other and face an awkward atmosphere.

Because the purpose of this project is making people's relationships closer, people who want to play the game must sit together instead of playing alone. The game is pretty suitable for mobile devices such as a tablet, iPad and smartphones which carry powerful portability and multimedia functionality. The players don't need to carry any devices other than a mobile device to play this game. Also, the multi-touch surface functionality of mobile devices can allow multi-players to play at the same time.

Functional properties:

FP-1.   The player can customize their characters

FP-1.1.   The player can choose their own characters

FP-1.2.   The player can declare their user-name

FP-2.   The player can control their characters

    FP-2.1.   The player can move their characters

    FP-2.2.   The player can decide direction with character's rotation

FP-3.   The player can pick up props to attack others

FP-4.   The last player can choose punishment by the turntable

FP-5.   The characters will rotate at the beginning

FP-6.   The system provides the game engine

    FP-6.1.   The system provides a collision check

    FP-6.2.   The system provides border check

FP-7.   The System provides points system

    FP-7.1.   Points will be determined according to the elimination order of each round

FP-8.   The System provides two different modes

Scenario A:

Alex, Eric, Jack, and Jason are going to a party, but they are not familiar with each other very well. They opened the Ice Battle at the party for trying to make some topics that people can join. They entered the drink in the punishment. Alex chooses to be a penguin and names the penguin as Luckyfoot, and other people also choose what they like. They chose normal mode and drink as punishment. When the game is starting, Alex stands on the right and top corner. And his role, the penguin, is rotating by itself. He sees a button on his side, and he tries to press the button. The penguin stops its rotation and starts to walk on straight. Then he crushes a polar bear controlled by Jack. And the crushing throw Jack's polar bear into the water. After 3 minutes, Alex's penguin has punched all of the other roles and gotten the winner of the round. Alex got the biggest point and other players received their points based on the rank of this round. Then they continued to the next round. After 3 rounds, Alex became the top one in the point system! But another guy, Jason, isn't lucky as Alex. He has

gotten the lowest point in the whole rounds. Everyone can't wait for Jason to roll the punishments.

Scenario B:

Derek and John are fans of the Ice Battle and wanted to play the game together. They opened the Ice Battle. Derek chose to be a Husky and named the Husky as SillyAss. John chose the polar bear and used Databack as his username. They chose the expert mode and singing as punishment. After the game started, they control their roles on two diagonal corners of the screen. Props appear randomly in the expert mode. John's polar bear picked up a prop and attacked Derek's Husky into the water. John became the winner and got a higher point. After Derek lost two rounds, he decided to end the game and accept the punishment.

Non-functional properties:

NFP-1.   Usability

NFP-1.1.   The system uses similar colours for all of the user interfaces

NFP-1.2.   The system has an easy operation page

NFP-1.3.   In the beginning, the system has a tutorial to help the players to understand

NFP-2.   Performance

NFP-2.1.   The system supports 2 to 4 players at the same time

NFP-2.2.   The system responses the user behaviour immediately

NFP-3.   Supportability

NFP-3.1.   The game provided connection information for reporting bugs and advice to the developing team and technic support

NFP-3.2.   The system should be updated since the bugs have been found

NFP-4.   Implementation

NFP-4.1.   The game supports compilation by Java

NFP-4.2.   The developing environment of the system is Android Studio

NFP-4.3.   The developing tool of the system is Unity

Start page background: