Sprint 1 Planning Document

Team Members:

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Sprint Overview:

In sprint 1, our team is going to learn how to use Unity to construct a windows AR application and how to use Kinect. We will implement the basic user interfaces and corresponding classes in sprint 1, including user, pet_list, pet, shop and condition.

By the end of this sprint, user will be able to see the main game interface with a simple pet model (without AI). User will be able to modify the name of the pet and play with it under a real-life background with the help of the AR technique. Moreover, user will also be able to see three menus on the corner of the screen with the menu names on it.

We plan to hold a regular meeting at every Monday and Friday based on our member's schedule. During the meetings, we will discuss each member's progress and solve the technical questions if have.

Scrum Master: Jiaping Qi

Scrum Meeting Time: Every Monday and Friday at 2:30 pm.

Risks/Challenges:

Since all of our team members are new to the Kinect and programming on Windows platform, it would take some time to learn these knowledge. Also since this is the first time our team member work together, we are not familiar with each other's coding style thus it may cause the inconsistency when merging the code.

Current Sprint Detail:

Functional:

As a user, I want view the pet on the screen	Estimate Time	Owner
Design a rough object model.	3	Shayin
Build the object model.	5	Jiaping
Design pet class interface	10	Shayin
Integrate the object model to kinect background.	10/person	Jiaping, Fangzhou

Acceptance Criteria: If this user story is implemented successfully, a user should be able to see the sample object on the screen. This object will be implement as the pet in later sprint.

As a user, I would like to see the background as real life.	Estimate Time	Owner
Get real-time video data from kinect.	5	Fangzhou
Set real-time video data as the background of the game.	5/person	Chi, Qi,
Get raw depth data from kinect and keep data into database.	5/person	Chi, Fangzhou
Analysis raw depth data.	10	Qi

Acceptance Criteria: If this user story is implemented successfully, a user should be able to see the background as real life.

As a user, I would like to have a menu on the	Estimate Time	Owner

right-hand side of the screen.		
Set up a round-Menu button on the right top.	3	Chi
Set up a drop-down Menu.	6	Chi
Implement the transition action for the menu.	4	Jiaping

Acceptance Criteria: If this user story is implemented successfully, a user should be able to see a menu on the right-hand side of the screen and be able to expand the drop down menu, however the function in the menu will be implemented in later sprint.

As a user, I would like to see a hunger bar on the left-hand side of the screen.	**Estimate Time**	**Owner**
Construct the bar model.	2	Shayin
Draw the UI of hunger bar on background.	5	Shayin
Implement the pop-up effect for the hunger bar.	8	Fangzhou

Acceptance Criteria: If this user story is implemented successfully, a user should be able to see a hunger bar on the left-hand side of the screen, we will do the data binding in later sprint.

As a user, I would like to have a shop to use the coin for the pet.	**Estimate Time**	**Owner**
Create the shop button on the lower-left corner.	2	Shayin
Create shop window.	6	Shayin
Implement the shop class.	8	Qi

Acceptance Criteria: If this user story is implemented successfully, a user should be able to see the shop button on the screen and could open and view the shop.

As a user, I would like to get coins from the pet.	Estimate Time	Owner
Create pet coin class.	5	Qi
Show the pet coin on the lower-right corner of the screen.	2	Jiaping
Implement the coin-getting functions.	3	Jiaping

Acceptance Criteria: If this user story is implemented successfully, a user should be able to see a coin class. Sprint 1 will focus on the basic interface and classes, so for this user story, we only want to design a coin class for pets and want to leave the rest (such as get coins from pets) to Sprint 2.

As a user, I would like to get food from menu when my pet get hungry.	Estimate Time	Owner
Implement food item class.	5	Chi
Implement the function to select the item from item list.	4/person	Chi, Jiaping
Implement the change of the view of the hunger bar when the percentage of hunger changes.	3	Shayin

Acceptance Criteria: If this user story is implemented successfully, a user should be able to drag the food to the pet and decrease the percent of hunger. Sprint 1 will focus on basic view of the bar with different percentage of hunger.

Non-Functional:

As a developer, I would like to set up the environment for Kinect (drivers and visual studio).	Estimate Time	Owner
Setup the Kinect working environment, including visual studio and Kinect SDK.	3/person	All members
Reading APIs for the Kinect SDK and get to know how to use the embedded functions.	4/person	All members
Learn how to use microsoft visual studio to run Kinect program and write simple programs to getting started.	3/person	All members

Acceptance Criteria: Having a general idea about how to program using visual studio and getting familiar with the Kinect SDK.

As a developer, I would like to have a simple UI.	Estimate Time	Owner
Create simple and clean UI for visual studio.	-	All members

Acceptance Criteria: Choose the most-suitable UI for microsoft visual studio so that every member can coding in a comfortable environment.

As a developer, I would like to have a readable documentation.	Estimate Time	Owner
Create the blank documentation.	1	Jiaping
Design the format of each function in the documentation.	2/person	All members
Add the corresponding information into the document when needed.	-	All members

Acceptance Criteria: Create the initial documentation for the project. Add the APIs against the class when new function created for each class by the member who wrote.

As a developer, I would like to keep track of the source code.	**Estimate Time**	**Owner**
Create the blank github for source control.	1	Jiaping
Push, Pull, Merge the code when changes.	-	All members

Acceptance Criteria: Having the source control for our project (we use github) and push the changes on it.

Summary:

Name	**Hours**
Jiaping Qi	40
Fangzhou Lin	40
Qi Zhang	40
Shayin Feng	40
Chi Luo	40
Total	**200**

Remaining Backlog

Backlog ID	Functional Requirements	Hours
1	As a user, I would see my pet feel hungry when the hunger bar is low .	12
2	As a user, I would like to feed my pet.	15
3	As a user, I would like to have different kind of food in the menu.	12
4	As a user, I would like see my food I choosed on the screen.	15
5	As a user, I would like to see my pet eat food.	15
6	As a user, I would like to see hunger bar raising after my pet eat food.	10
7	As a user, I would like to see health bar on the left-hand side of the screen.	17
8	As a user, I would like to get the medicine to cure the pet. when get ill.	15
9	As a user, I would like to see the pet growing up.	30
10	As a user, I would like to see my pet sick when the health bar is low.	15
11	As a user, I would like to see health bar raising after my pet get the medicine.	12
12	As a user, I would like to see a happiness bar on the left-hand side of the screen.	15
13	As a user, I would like to get object to play with my pet from the menu.	20
14	As a user, I would like to get different objects play with pet.	20
15	As a user, I would like to see my pet feel bad when the happiness bar is low.	15
16	As a user, I would like to see happiness bar growth after I	12

	playing with it.	
17	As a user, I would like to see a vivid pet model.	10
18	As a user I would like to see the pet-in-game behave as a real pet.	30
19	As a user, I would like to see the different idle action of the pet.	15
20	As a user, I would like to check the friendship with the pet.	15
21	As a user, I would like to see my pet have special action when it get closer to me.	18
22	As a user, I would like to have extra food and toy model in the shop.	12
23	As a user, I would like to different types of pet to raise.	20

Backlog ID	**Non-Functional Requirements**	**Hours**
1	As a developer, I would like to save the data in a stable database.	15
2	As a developer, I would like to minimize the computation resource usage.	30
3	As a developer, I would like to let the application extendable.	40
4	As a developer, I would like to have sample code model.	15
5	As a developer, I would like to reduce the cost of the project.	12