Game Design Document

Name: Miriana Nicole Grixti

Class: int 5.2

Contents

Game Summary:

So the game will consist of a fishing game, where the player has to help the fisherman to catch much fish as possible. As the game loads there will be the fisherman on the boat and the fish will start appearing on screen, the user needs to click on the a fish others will hide and then click 3 times so the fish is caught and the score add up to 1.

Core Mechanics:

- When fish clicked others hide.
- As fish clicks changes position
- As the fish clicked 3 times get destroy and add score.
- Timer as the game loads.

Game Play:
So as the screen loads there will be a welcome screen and the user needs to press start, then the instructions will show , then the game will start. As the game starts on screen timer starts ,there will be the fisherman on the luzzu. The background will consist of at the top a view and the bottom part will have the sea, then fish lampuki will start spawning in random position,the player need to click on the fish and try to catch it as soon as possible to add the score.

Music:
So in the game there will be background music of the sea which will be slow and calm. The feeling is that as the player is playing the game the sound reminds him of the actual sound of the sea.

Art Style:
The art style will be under the sea theme cartoonish ,the top part there will be a scene and the bottom part will have the sea .There will be the fisherman on the luzzu.

Game name		
Fishing planet		
Lets fish		
Cat goes fishing		
Fishing break		
Stardew valley		

Scope Check

Part 1:Visualization and Implementation

Visualization
1.Visualize what on screen and make a rough sketch of the sequence:
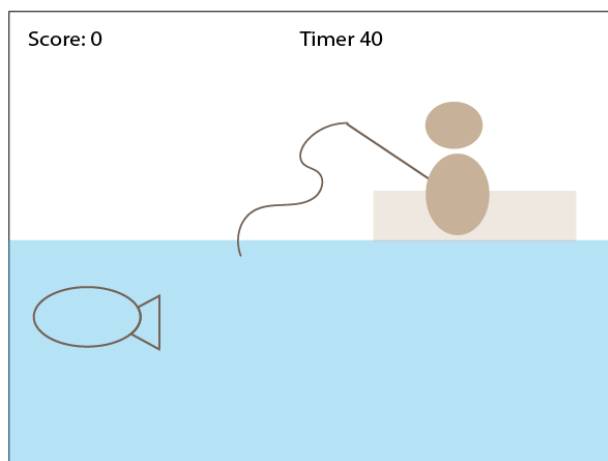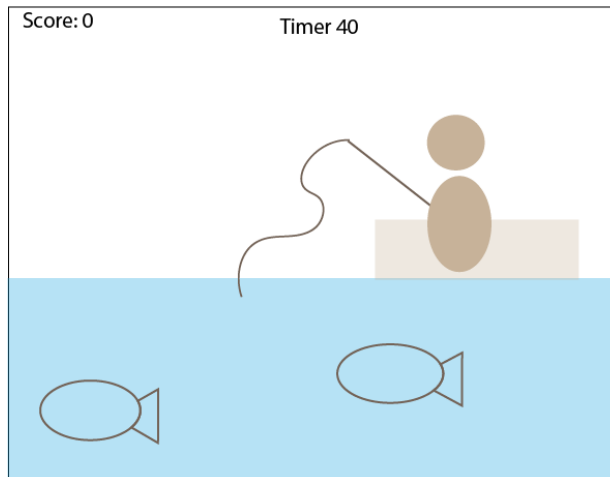
The sketch shows when the player clicks on the fish other fish hide.

2.Write down everything you see on the screen. Don't forget things like background art, a score or a timer.

In this we can see when the player click on a fish and it changes position.
- the background
- the fish
- the fisherman in his luzzu
- the timer.
-

3. Write down a list of everything that moves or changes. Are there visual effects, like blinking an enemy red to show damage? Are there sound effects, like a "thump" for placing a tower?
The timer reduces by 1 second

The other fish hides

score increases by 1

The fish moves position

4. Write down a separate list breaking down each step of what the player is doing, and what happens in response. How do you tell the game what you want to do? For example, click to move or press 'E' to charge shrink ray.) How does the game tell you you're making progress or not?
- Move the cursor on a fish
- Click on the fish
- When the player clicks on fish it changes position and the others, get destroyed
- Score will add by 1
The player will know/he/she is making progress for the fact that the score will add up when a fish is caught and the fish will be destroyed.

Implementation:
1. Imagine how you would write the code for each thing in your last two lists things that move and player interactions/feedback.

a) Have you done anything like it before? Is there code from previous projects that you could copy and adapt, rather than starting from scratch?

Yes in the past I did games, but the game mechanics and idea were different. From last year s game I would like the menu transitions and the code for the background music and score.

b) Do you know of a tutorial or asset pack that could take care of some of the functionality for you? Paste the links here.
The haunted forest game.
Destroy onClick tutorial

c) Do you have friends or classmates in this course who can help you with these tasks?
Yes, If I will need help I am sure that my classmates will help me.

di Write down your three biggest coding questions, e.g. "how to make one-way platforms" or "how to make the tower icon move with the mouse".
- How to make the particle effect with bubbles?
- How to make the fish spawn randomly
- How to make the fish change position randomly on click?

3. Go to various forums like Stack Overflow and Unity Answers. Look for answers for your quesitons. Did you find any? Did you generally understand the answers or did they use a lot of unfamiliar vocabulary?

- How to make the particle effect with bubbles?
add vertical force and a small size grow in the particle animator

    • How to make the fish spawn randomly?
    Vector2 randomPosition;
    Public float xRange = 3f;
    Public float yRange = 3f;

    Float xPosition = Random.Range(0 = xRange , 0 + yRange);
    Flaot yPosition = Random.Range(= yRange , 0 + yRange);
    Randomposition = newVector(xPosition,yposition);
    Transform.position = randomPositon;

- How to make the fish get destroyed on click ?
    OnMouseDown

4. Make a list of every visual and audio asset in the sequence i.e. you don't need to think about the whole game). Be thorough – don't forget things like animations and particles, or UI elements like score.

Type	Description
Animation	The fishing rod moving
Visual assets	Luzzu
	Fisherman
	Menu
	Buttons play, start again
	Scene game over screen
	Fish
Environment	Maltese sea background
Particle effect	Bubble particle effect when fish gets destroyed
Ui elements	Score
	Buttons
Audio	Background music of sea

c. If you plan to find some or all of them online, take half an hour and try to find every element in your sequence environment, character, UI font, etc.i in a matching art style. Try to find a couple of audio assets too. Paste a few of the images here, and note the ones you couldn't find.

I am going to try to create all the elements of the game, these are some of the references images that I found online
The font used is Times new Roman.

Inspiration images

Part 2: Scale, Challenges and Resource

Scale

Now step back from the sequence mentally and think about the whole game. Think about all the parts of the game that can be numbered and grouped.

1.Make a list. Go ahead and put down a number for each that seems reasonable.

1 level
1 particle effects
3 fish
1 score
1 timer
4 scenes

2. Mentally cut each number in half. Is the game still playable? Does it still create your core experience? Now try reducing each number to ,and ask yourself the same questions.

Yes the game is still playable cause there are still fish available, No it will not create a core experience because the game will not be the same.

0 level
0 particle effects
1 fish
0 score
0 timer
2 scenes

The game won't be playable since most of the element of the game are reduced.

Challenges

Based on all of the above, write down the top three challenges you foresee in the process of making your game over the next few weeks. Be specific, and phrase them as questions. These are examples of
answers that are too vague to be useful to you:

- "I don't know if I will be able to do the game challenging enough"
- "I'm not sure how to do the background of the scene"
- "i think that i will find challenging the fish movement code"

Resources

1. The most important resource is your own time. Look at your calendar for weeks 4-8 of the course a total of five weeks). For each week, write down the smallest number of hours that you can safely commit to, given your other commitments and interests. Do not assume you can spend every waking hour on your game for six weeks.

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Hours
Week 1	Start thinking about ideas 1.30hrs	Research about them and ideas 2hrs	Start the game design document 2hrs			Finish game Design Docume nt 3hrs	Start Working On the sketch 2hrs	10 hrs

Week							
Week 2	Start unity project code	Fish Code and Testing 2hrs	Movement Fish and Testing 3hrs		Code 6hrs	Code 6hr		17 hrs
Week3		design of player and luzzu 2hr	Continue the design of Background, 3h		Continue the design 3hrs	Design the Elements and instruction screen 3hrs	Finalize design 1hr	12 hrs
Week 4	Add Background music design animation model sheet 2hrs	Add the assets 3hrs	Add Animation Particle effect 3hrs		Menu and interface 3hrs			11 hrs
Week 5	Continue testing 1hrs	Implement changes from feedback	Arrange Errors 2hr					3 hrs

Now subtract 25% of the number for each week because things happen – vet appointments, traffic, hay fever, friends needing favors, accidentally sleeping in, etc. Write down the total number of hours for all five weeks here.
Total hours 53
25/100 *53 = 13.25 hrs

Part 3: Market Research

Based on current trends, where does your game ft in the market?
I think that this game will fit as a challenging mini game ,that everyone can enjoy playing

Who is the target audience of your game? What are their preferences and pain points?
The target audience of the game is everyone since young children and adults can play this game.

Who are your main competitors, and what unique value does your game offer compared to them?
There are many good competitors but the unique value point of this game that it is based on Maltese traditional such as the luzzu ,the lampuki fish which these are Maltese.

Another feature is that the user in order to catch the fish the user needs to catch the fish as soon as possible.

How do you plan to gather market feedback and iterate on your game based on this?
I would like to make questions to people after playing the game the main mechanic, movement ,score timer and design.
After I will take the feedback and implement changes to improve the game.

Part 4: Reality Check

I think that I will be able to do a game at the end of the course, since I like the theme that i choose for this game and I think it will be an interesting thing to always learn new things.

Story

The story is about, it was a nice summer maltase sunny day and this young boy who works as fisherman and one fine,day decides to go out fishing with his luzzu for lampuki when the season opens. The fisherman who loves fishing and this is his daily job, he comes from a rich family but he always loved the sea and decided to be a fisherman.

The character:
Maltese young fisherman Tumas 17 years old.

Story Board

As the game loads the user needs to click start to continue
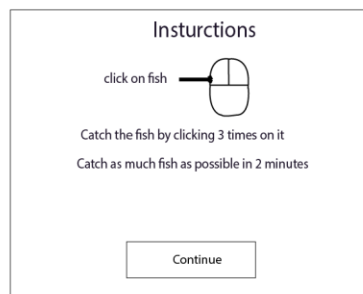
The instuctions screen in shown to the user and then the user needs to click continue
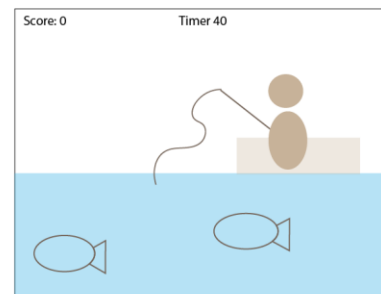
As the game loads the timer will start and fish willa ppear on screen
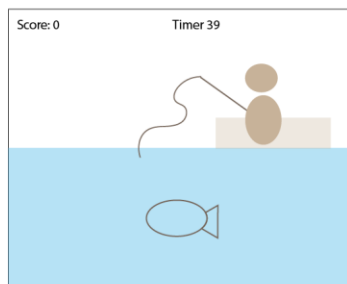
As the user click on a fish it changes position and the other get destroyed

As the user click the 3 time the fish is caught and gets destoyed and the score is added by 1.

Then other fish will appear on the screen again.

```
                                                    ( A )
                                                      │
                                                      ▼
        ( Start )                            No    ╱ Timer is ╲
            │                            ┌─────────◇    0      ◇
            ▼                            │          ╲         ╱
    ┌───────────────┐                    │              │
    │ Welcome screen │◄──┐               │            Yes│
    └───────────────┘    │               │              ▼
            │            │               │    ┌─────────────────┐
            ▼            │               │    │ Show game Over  │
         ╱ User ╲    No  │               │    │     screen      │
    ◄───◇ press  ◇───────┘               │    └─────────────────┘
        ╲ play  ╱                        │              │
            │                            │              ▼
         Yes│                            │           ╱ play ╲   Yes
            ▼                            │          ◇ again  ◇──────► ( B )
    ┌───────────────┐                    │           ╲      ╱
    │ Show instruction │◄──┐             │              │
    │     screen      │    │             │            No│
    └───────────────┘     │             │              ▼
            │ Yes          │             │         ( End )
            ▼              │             │
        ╱ User ╲    No     │             │
       ◇ press  ◇──────────┘             │
       ╲continue╱                        │
            │                            │
         Yes│                            │
            ▼                            │
    ┌───────────────┐                    │
    │  Show game     │                    │
    │    screen      │                    │
    └───────────────┘                    │
            │                            │
            ▼                            │
( B )──► ┌───────────────┐               │
         │  Start game    │              │
         └───────────────┘               │
            │                            │
            ▼                            │
    ┌───────────────┐                    │
    │  Start timer   │                    │
    └───────────────┘                     │
            │                            │
            ▼                            │
    ┌───────────────┐                    │
    │Start background│                    │
    │     music      │                    │
    └───────────────┘                     │
            │                            │
            ▼                            │
    ┌───────────────┐◄──┐                │
    │ Start spawning │    │               │
    │     fish       │    │               │
    └───────────────┘     │               │
            │◄─────────────────────────────┘
            ▼              │
         ╱ user ╲     No   │
    ◄───◇  click  ◇        │
        ╲  on    ╱────┐    │
        ╲ fish  ╱      │    │
            │          │    │
         Yes│          │    │
            ▼          │    │
    ┌───────────────┐  │    │
    │remove other fish│  │    │
    └───────────────┘   │    │
            │           │    │
            ▼           │    │
         ╱ user ╲  No    │    │
       ◇  click  ◇───────┘    │
       ╲ 2 time ╱             │
       ╲ on fish╱              │
            │                 │
         Yes│                 │
            ▼                 │
    ┌───────────────┐          │
    │ move fish in   │         │
    │   random       │         │
    │   position     │         │
    └───────────────┘          │
            │                 │
            ▼                 │
         ╱ user ╲   No         │
    ◄───◇  click  ◇            │
        ╲ 3 time ╱             │
        ╲ on fish╱              │
            │                 │
         Yes│                 │
            ▼                 │
    ┌───────────────┐          │
    │ Add 1 to score │         │
    └───────────────┘          │
            │                 │
            ▼                 │
    ┌───────────────┐          │
    │  Destroy Fish  │         │
    └───────────────┘          │
            │                 │
            ▼                 │
    ┌───────────────┐          │
    │ particle effect │        │
    └───────────────┘          │
            │                 │
            ▼                 │
    ┌───────────────┐          │
    │ Show other fish │        │
    └───────────────┘          │
            │                 │
            ▼                 │
         ( A )                │
```
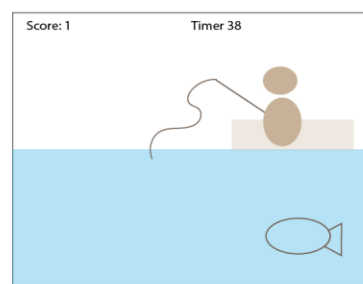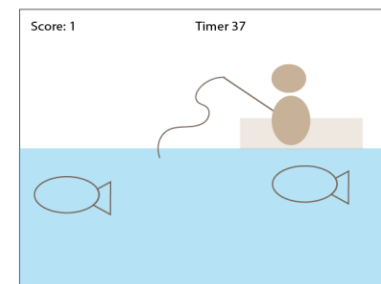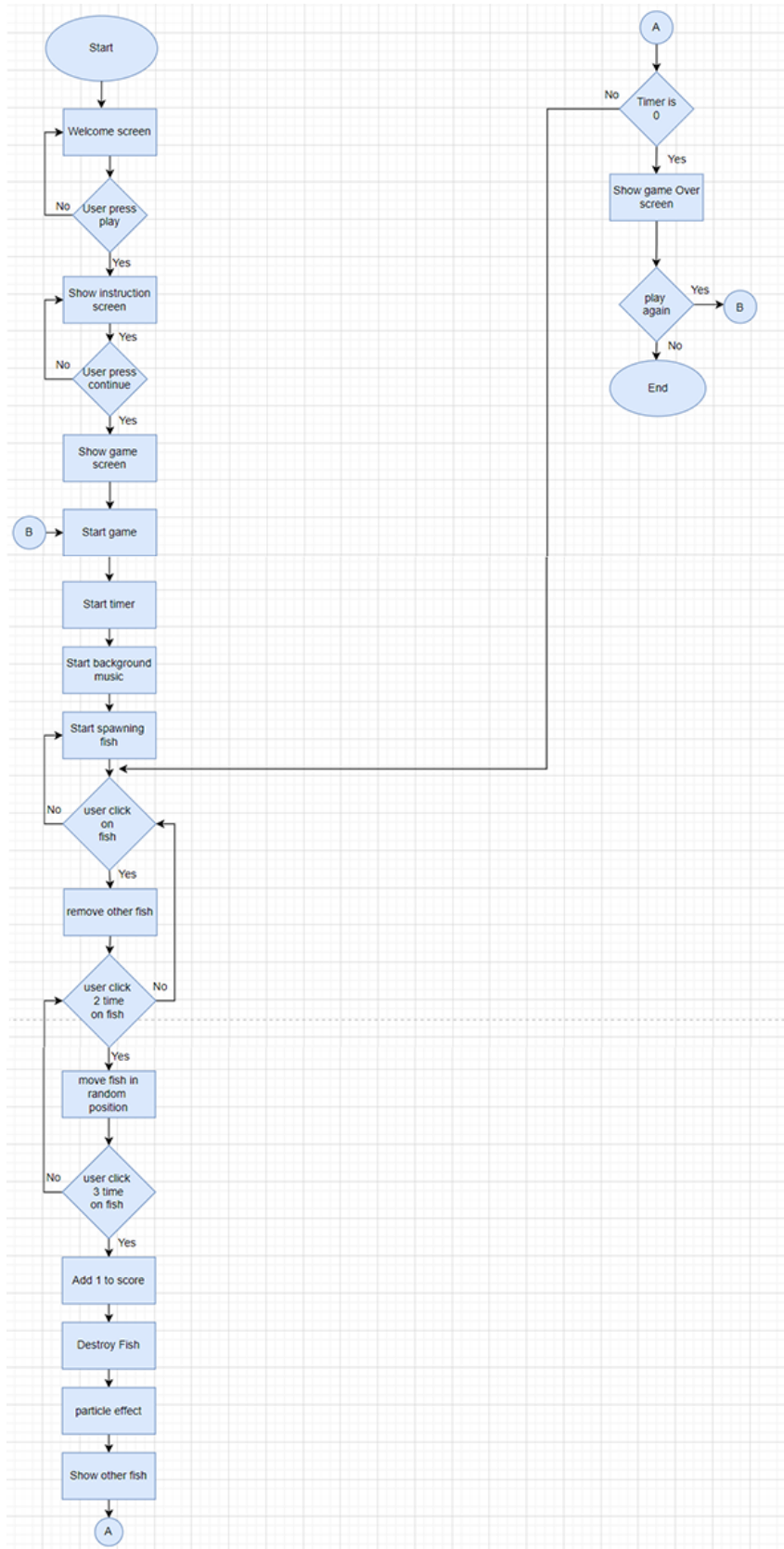
CRC cards

Fish movement	
fish move at random position	click fish

Fish spawning	
show fish at random position	click fish
remove other fish	

click fish	
move mouse on fish	Fish spawning
click fish	add score
fish move at random position	
on 3 click destroy	

Add score	
1 point	click fish

Game Manager	
score	

Timer	
start timer as game loads	

Uml_diagram

Game Manager

score:Int

+Start();
+GetScore();
+AddtoScore();
+Awake();
+OnDestroy();

Fish

movespeed:float
-randomposition:vector
+numofclicks

#start:void();
Update()void;
SetRandomPosition();
On3clicks();
ShowFish();
HideFish();

Level

+LoadStart();
+Instructions();
+LoadGame();
+GameOver();

Music

-current:static

Awake:void();

Timer

-timer:float;

Update:void();

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