Game Summary:

So the game will consists of a platform game, where the player needs the help the player which is a thief to catch all the diamonds that he stole back as he found him self in this mysterious land and try to avoid the obstacles which are found in the game world.

The player move using the arrow key and jump using the space, as the player touches the diamond 1 point is added to the score and if the player touches an obstacle health bar is reduced.

Core Mechanics:
- diamond spawning at random position as destroyed add score.
- left arrow key move player left
- right arrow key move player right
- Health Bar
- space bar to jump

Gameplay:
As the game loads there will be a welcome screen where the user need to click start and then the instruction screen will show and after the player press a key he/she can start the level.
As the game starts on screen there will be the player. The background will consist of a mysterious fantasy world ,there will be the diamonds and obstacles and the player needs to start collecting the diamonds and search the key and try to avoid the obstacles found.

Music:
Through out the whole game there will be different sound effects for each of the player s actions all these sound will be done with a music and sound effect trigger system.
The sounds will consist of fun challenging sounds.

Art Style:
The art style will be in a mysterious fantasy world theme cartoonish, in the world there will be strange colour and designed plant and strange obstacles. The player will be wearing clothes of a thief.
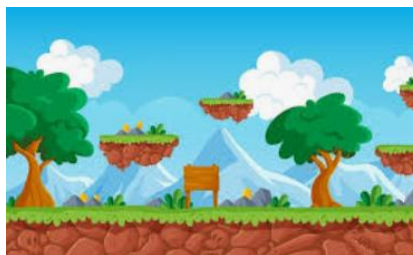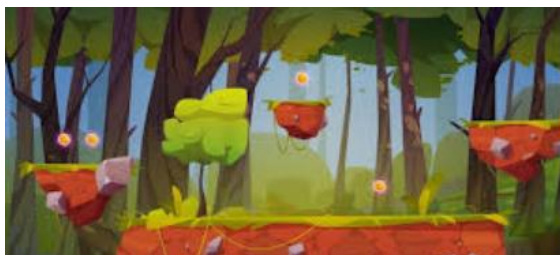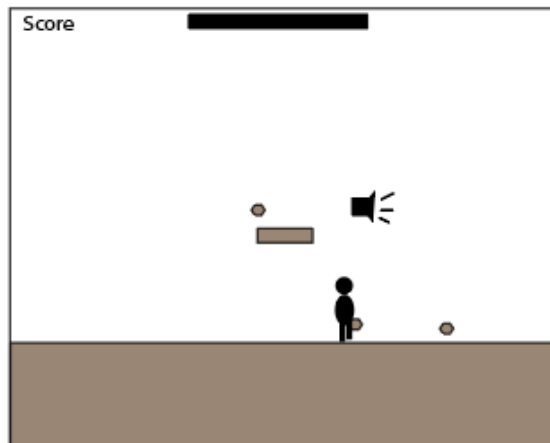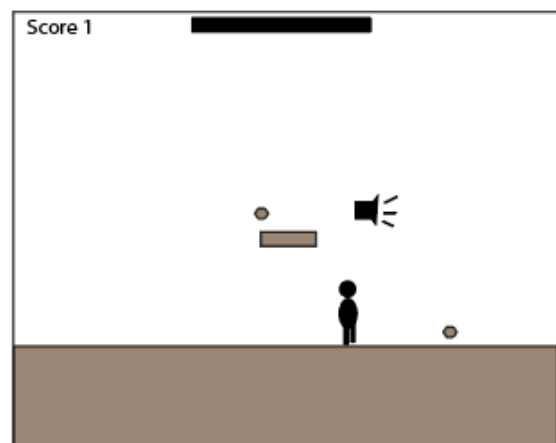
Scope Check

Part 1:Visualization and Implementation
Visualization
1.Visualize what on screen and make a rough sketch of the sequence:

In this scene we can see the player move and collect the diamond sound effect plays accordigly.

As the player touches the diamond it will get destroyed and the score will add upp by 1.

The sketch represent 2 scene where the player touches diamond and it gets destroyed and the score adds up to 1 and a sound effect is played.

2.Write down everything you see on the screen. Don't forget things like background art, a score or a timer.
- Background platformer
- he player thief
- the diamond
- the sound effect
- the score
- the health bar

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?

Player moves to the right
the score adds up by 1
A sound effect is played as the player catches a diamond.

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)?

Press right arrow key to move right
Player moves right
on touch the diamond gets destroyed
score will add up by 1
diamond gets destroyed
sound effect plays when diamond collected
music plays through out the game

The player will now that he is making progress for the fact that when the player collects a diamond a sound effect is played and when the player collects a diamond sound will be played and score add up by 1.

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?

      No I never did something like this since the game is a platformer game since this is something new and this goes the same for the music and event trigger sound system I never did something like this although Implemented sound in unity.

      For the game there is code that I would like to use such as the health bar and scene changing 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.
      2d platformer game
      https://assetstore.unity.com/packages/2d/environments/free-platform-game-assets-85838

   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.

   d) 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 health bar
- How to make the obstacle
- How to make the obstacle reduce the score.

3. Go to various forums like Stack Overflow and Unity Answers. Look for answers for your questions. Did you find any? Did you generally understand the answers or did they use a lot of unfamiliar vocabulary?
Health bar
 creating a new canvas, then create slider and fill image and then attach the script.

Obstacle:
Create a 2d object,
on trigger enter

I took a basic idea of what needs to be done.

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
Visual Assets	Player
	obstacles
	menus
	Buttons, restart
	diamonds
Environment	Fantasy theme background.
Ui elements	score
	health
Audio	Background music sound effect grab diamond sound effect on touch obstacle sound playing on jump Sound effect water.

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.) 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 from sound to graphics of the game, these are some of the references images that I found online

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 player
100 diamond
1 obstacle
1 score
4 scene
1 music event system 7 sound effects

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.

But if the game is cut it will not be playable for the fact that in this game there is only 1 player and if it is cut the game wont be playable.

0 player
50 diamond
1 obstacle
0 score
2scene
0 music event system 3 sound effects

The game won't be playable since most of the element of the game are reduced and even for the sound since all the sound will be trigger with a player s action and there is no player .

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 am able to do the sound trigger accordingly
- I don't know if I am able to merger 2 different background soundtrack
- I don't know how to stop 1 background music and leave the other 1.

Music and Sound effect event trigger System

An editor for integrating and triggering sound based on game events or player actions.

Minor Requirements

- Event manager for assigning sound effect and music to game events and actions.
- Trigger zone designer for areas that activate specific sounds or music open entry.

The idea is to make sound effects and music triggers in the level. I would like to create all the sound effects in the game.

The player enters in that range a sound effect is played accordingly to make the player enter more in the fell of the game.

I would like to implement sound as the player collects a diamond.

Do sound when the player jumps there will be a sound located.

I would like to make sound when the player moves through different paths of the games so that the music can change in the level of sound.

As for the background music i would like to merge 2 different background music and music changes in some parts.

I would like to trigger sound when the player touches water.

Add a sound when the player touches with an obstacle.