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Interactive mini Game Design
Early European Gardens: Autumn Grapes to Wine-Illuminated Manuscripts (1530)

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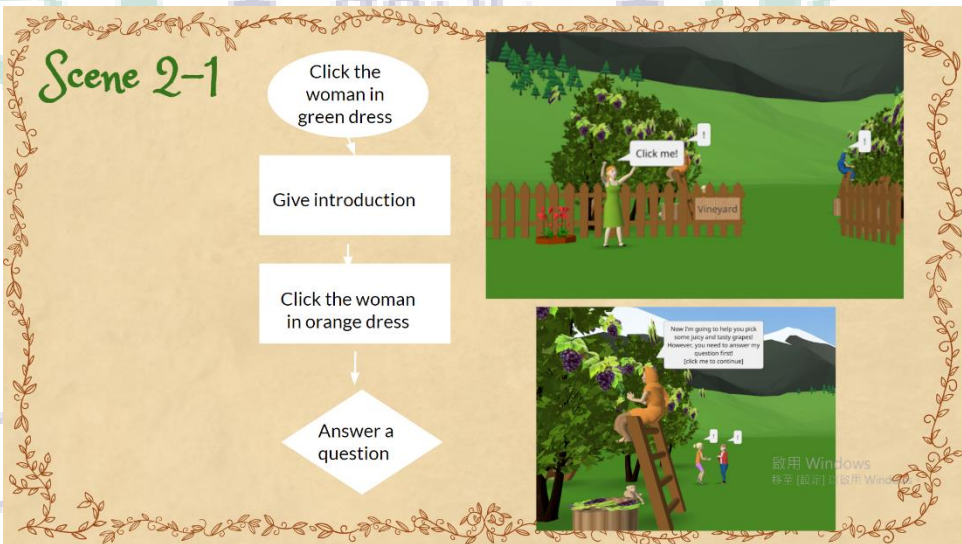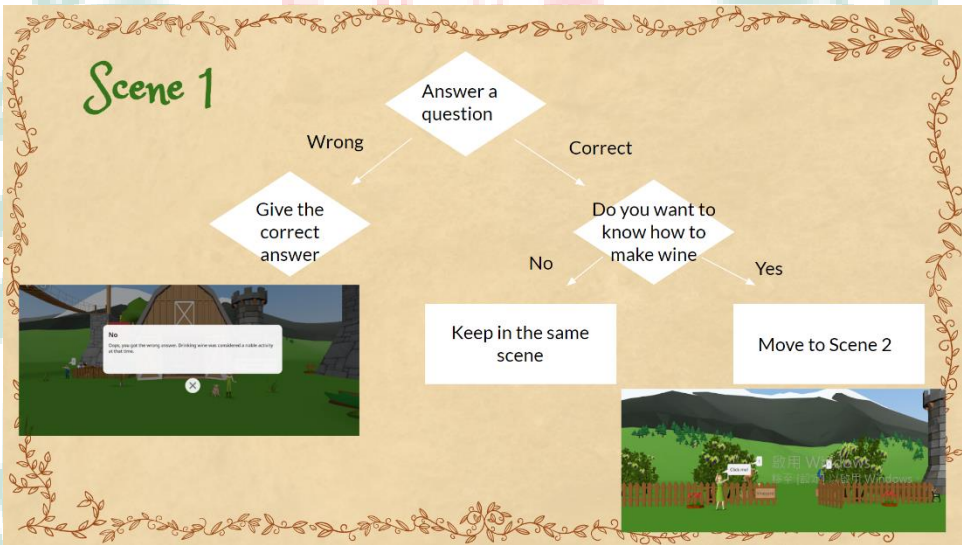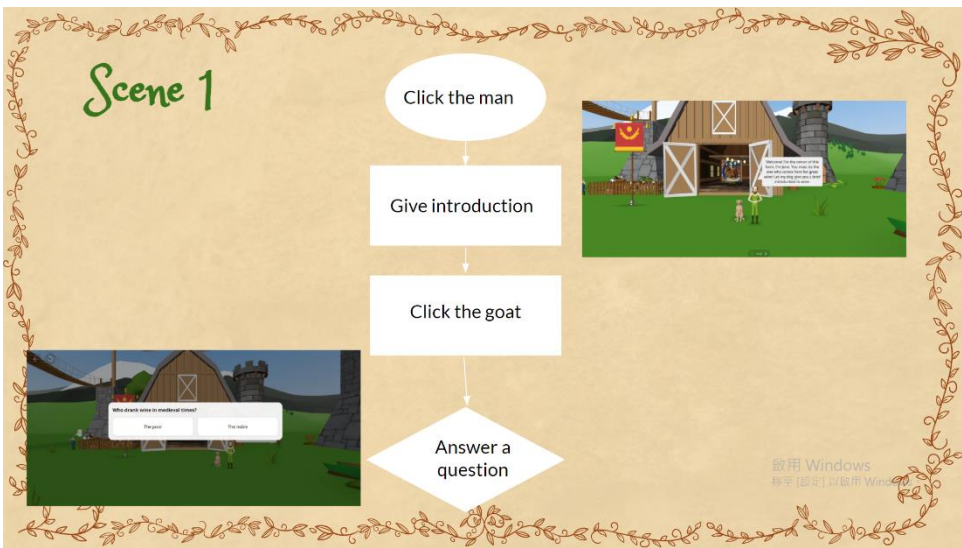# Interactive mini Game Design
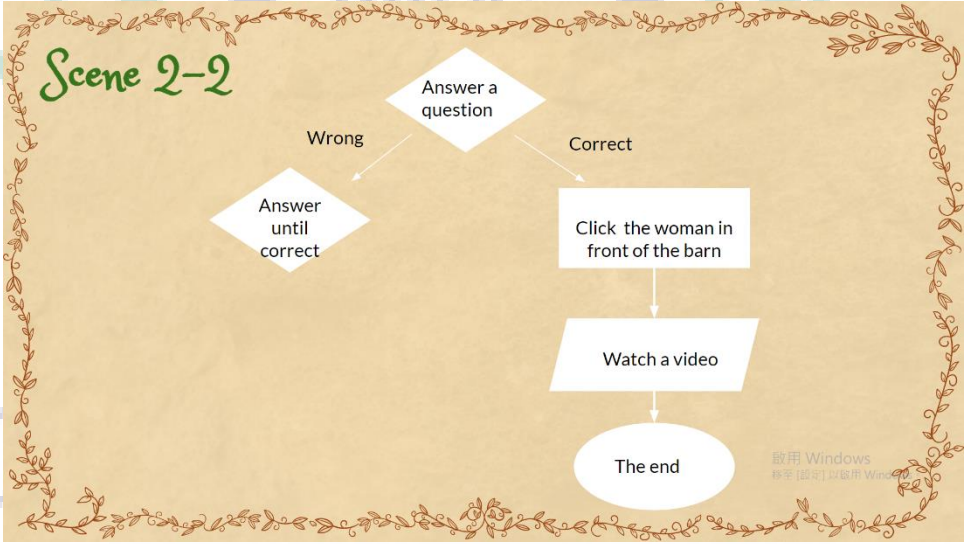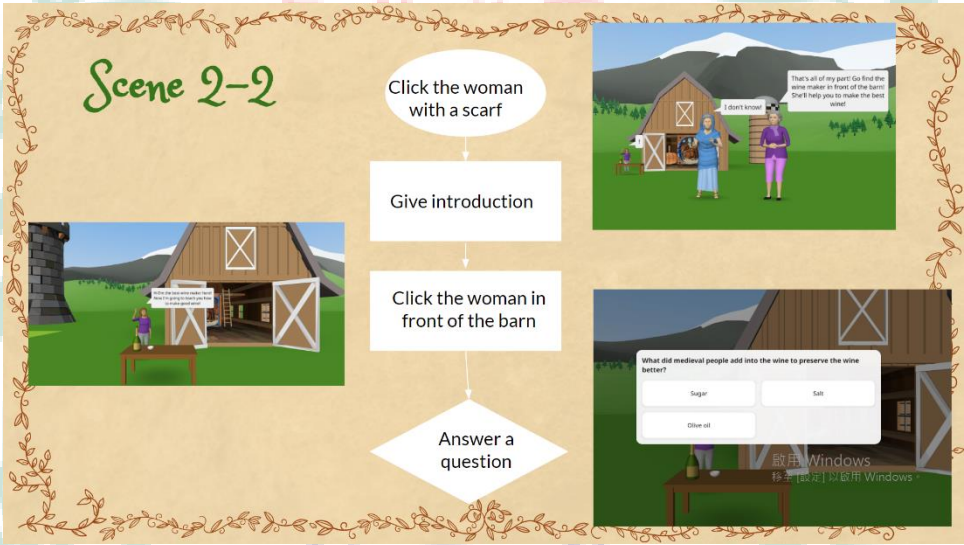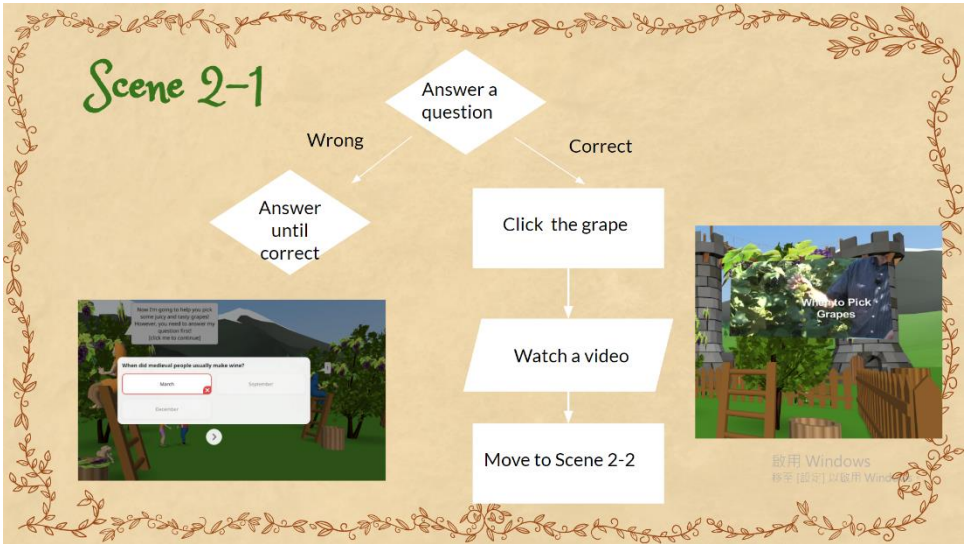
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Project link: https://edu.cospaces.io/EAR-GGH

Topic	Early European Gardens: Autumn Grapes to Wine-Illuminated Manuscripts (1530)	Teammate(s)	Joanne Lin 林育萱 Sandy Lee 李若榆
Theme	Knowledge about winemaking in medieval times.	Background	We use the painting to create a 3D game to introduce history of wine in medieval times. The introduction includes the popualrity and social status related to wine, grape picking, and history of wine-press.
Target Users	People who are interested in the lifestyle of medieval times or the history of winemaking.		
Purpose	We aim to create an interactive and easy 3D virtual reality (VR) game to help users realize the lifestyle as well as the processes and procedures of winemaking in medieval times.		
Character(s)	First scene: The farmer: The man dressed in green gives introduction about the history of wine. The dog: The dog gives more introduction to the wine. The goat: The goat giving a quiz about the introduction to wine. Second scene: Grape yard keeper: The woman dressed in green skirt gives introduction to grape picking. Grape picker: The woman dressed in orange robe gives a quiz about grape picking. The grape: The biggest grape that users are asked to look for in the yard. The manager: The woman dressed in purple and wearing a scarf gives introduction to winemaking processes. The wine maker: The woman standing in front of the barn gives a quiz and shows a video about winemaking.		
Plot	The user is interested in winemaking in medieval times and is invited to the farmer to have a special experience of winemaking. After greeting the farmer in the first scene, the farmer and the dog happily introduce the history of wine, which includes the reasons for the popularity of wine and how it reflects the social status in medieval times. Realizing a brief history about wine, the user is asked to look for a goat that will give a quiz and later brings the user to the second scene. In the second scene, the		

	user meets the grape yard keeper and she will introduce the knowledge and processes of grape picking. Realizing the history of grape picking, the user is asked to look for the grape picker with an orange robe to have a test and receive a mission. Later, the user has to find out the biggest grape in the yard and finish watching the video teaching people some interesting knowledge about grape picking. After the hard work, the user is invited by the yard manager to realize more knowledge about the processes of winemaking. Finally, the user looks for the woman standing in front of the barn to have a quiz and watch a video to learn more about the actual processes of winemaking. After finishing all the tasks, the user can go into the barn and see the model painting that we use to create the scenes.
Game Play and mechanics	Multimedia: We embedded two videos in the game to help users learn more about winemaking. • Video 1: How to know when to pick grapes • https://www.youtube.com/watch?v=utPvcMf0aBU • Video 2: Wine press • https://www.youtube.com/watch?v=kqpcs8Pwugk&t=5s Interface: • We use several choice panels to ask questions. • We use speech boxes to give information to users. • We use panels to give instructions. • We use white boards to help users go the the second scene or exit the game. Education: We create the game with lots of information about winemaking in medieval times to help users learn it. Cultural: Winemaking in medieval times is a special activity for the noble and this activity keeps developing into culture nowadays. Game rules/Challenges and activities: The game is made to let users learn the process of winemaking. They need to follow the instructions to move on in the game. There are several questions in the game to test users' comprehension of the information given from non-player characters NPC. Users are asked to answer some questions after learning the information given from NPC. If users answer questions correctly, they can move on to the next scene or mission. Also, there is a mission that users need to find out the biggest grape in the yard.
Flowchart	

Scene 1

Click the man
↓
Give introduction
↓
Click the goat
↓
Answer a question

Scene 1

Answer a question

Wrong / Correct

Give the correct answer

Do you want to know how to make wine

No / Yes

Keep in the same scene

Move to Scene 2

Scene 2-1

Click the woman in green dress
↓
Give introduction
↓
Click the woman in orange dress
↓
Answer a question

Scene 2-1

Answer a question
— Wrong → Answer until correct
— Correct → Click the grape → Watch a video → Move to Scene 2-2

Scene 2-2

Click the woman with a scarf → Give introduction → Click the woman in front of the barn → Answer a question

Scene 2-2

Answer a question
— Wrong → Answer until correct
— Correct → Click the woman in front of the barn → Watch a video → The end

Storyboard

Scene	Image		Sound
	Screen shot	Description	Narration/ Sound effect/ Background music
1-1		The user is asked to find the farmer to learn the popualrity and social status related to wine in the medieval times.	Narration: Farmer: Welcome! I'm the owner of this farm. I'm Jone. You must be the one who comes here for great wine! Let my dog give you a brief introduction to wine. Dog: Woof! Woof! In the Middle Ages, wine was a sign of status. Drinking it placed you a cut above the general population. More than that, every sort of alcohol of the time was also used as a way to drink without exposing yourself to the dangers of contaminated drinking water, because the quality of water is not good at that time, beer and wine are safer and healthier to drink. Go ask the goat for more information. Background music: Fredji - Happy Life https://www.youtube.com/watch?v=KzQiRABVARk
1-1		The user is asked to look for the goat for further instructions and have a quiz.	Narration: The goat: Hi, it seems that you are looking for me. I can teach you how to make wine, but before that, you need to answer an easy question! Who drank wine in medieval times? Do you want to know how to make wine? Then, do you want to go to the grape yard with me? We'll go when you are ready.
2-1		The user goes to the grape yard and learn the knowledge about grape	Narration: Yard keeper: Welcome to the grape yard! We're going to pick grapes then! Before that, I'm going to give you a brief introduction of grape picking! Medieval calendars remind us that September is the month for making wine. If planting and pruning vines fall to the

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		picking from the yard keeper.	month of March, September is the time for cashing in on all the effort.To turn grapes into wine has never been an easy task. During the summer months, the vines grow heavy with fruit. September is the time to start picking the grapes and prepare them for the arduous journey towards vinification. That's all of my part! Now it's time for you to pick the grapes! Go to find the woman dresses in orange! She'll help you! Background music: "La Traviata" Drinking song
2-1		The user is asked to find the grape picker and have a test about the right time to pick grapes.	Narration: Grape picker: Hi! I'm the chief grape picker here! Now I'm going to help you pick some juicy and tasty grapes! However, you need to answer my question first! When did medieval people usually make wine? Now go to find the biggest grape! It belongs to you!
2-1		The user is given a mission to find out the biggest grape in the yard and finish watching the video about picking grapes	Video: How to know when to pick grapes https://www.youtube.com/watch?v=utPvcMf0aBU

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| 2-2 | | The yard manager gives introduction to history of wine-press . | Narration:
Yard manager:
Hi! I'm the manager here! It seems that you successfully get the grapes! I'm going to introduce the process of winemaking to you. Listen carefully! You will use right away! In medieval calendars, each month had one or several types of agricultural activities (or labours) associated with it. The labour of the month of September was wine-making and the associated symbol was usually the wine-press, and later the wine barrel. The Romans had invented technology using mechanical pressure to crush grapes into juice. Their successors went further, developing the 'basket press.' The grape juice was then poured into casks and barrels and stored. Medieval people will add some olive oil into the wine to preserve it better! That's all of my part! Go find the wine maker in front of the barn! She'll help you to make the best wine! |
| 2-2 | | The wine maker in front of the barn first asks a question about the ingredient to preserve the wine better and later shows the user a video to learn more about wine-press. | Narration:
Wine maker:
Hi I'm the best wine maker here! Now I'm going to teach you how to make good wine! Before that, you need to answer a question! What did medieval people add into the wine to preserve the wine better? Great job! Let's go to make wine!

Video:
Wine press
https://www.youtube.com/watch?v=kqpcs8Pwugk&t=5s |

QC Checklist

Student ID 408110118   Name: Amy Shen   Group ID:
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No.	Item	Module	Result			Decision
			Pass	Minor issue	Major issue	Pass/Hold
1	Instruction board	panel	ok			Hold
2	When users click the farmer, show information.	Speech box	ok			Hold
3	When users click the goat, show information.	Speech box	ok			Hold
4	When users click the goat, the question 1 pops up.	Choice panel	ok			Hold
5	After answering a series of questions, the borad pops up.	board	ok			Hold
6	When users click the board, move to scene 2.	board	ok			Hold
7	When users click the yard keeper, show information.	Speech box	ok			Hold
8	When users click the grape picker, show information and the question 2.	Speech box/ Choice panel	ok			Hold
9	When users do not answer the question correctly, ask users to do it again.	Choice panel	ok			Hold
10	When users click the biggest grape, show the video.	video	ok			Hold
11	When users click the box above the biggest grape, move to the second camera angle.	Speech box	ok			Hold
12	When users click the manager, show information.	Speech box	ok			Hold
13	When users click the wine maker, show information and question 3.	Speech box/ Choice panel	ok			Hold
14	When users do not answer the question	Choice	ok			Hold

	correctly, ask users to do it again.	panel				
15	When users click the correct answer, show the video.	video	ok			Hold
16	When users click the exit board, pop up the choic panel.	Choice panel	ok			Hold
17	When users click "yes," exit the game.	Choice panel	ok			Hold

Programming Journal

Date: 2022/01/13   Student ID: 408110118   Group ID: 4

1. Project goal/ scope.

We aim to create an interactive and easy 3D virtual reality (VR) game to help users realize the lifestyle as well as the processes and procedures of winemaking in medieval times. Through the questions and the mission to find the biggest grape, users can learn the process of winemaking.

2. My task(s)

I am responsible for decorating some part of the first scene and mainly the grape yard in the second scene, which includes designing the postures of people, arranging and designing the grape trees, designing some speeches of NPC.

3. Progress.

#.	Task description	Done
	Painting decided.	2021/10/18
	Decorating first scene.	2021/10/25
	Decorating first scene and doing coding.	2021/11/01
	Decorating second scene and doing coding.	2021/11/08
	Overall testing and modification.	2021/11/22

4. Problem solving solutions

#	Problem encountered	Solution(s) tried/ other possible solutions
	The horse, the goat, and clouds cannot move.	We make the horse, the goat, and clouds run paralle and forever.
	The goat would be covered sometimes.	We fix the path to avoid it being covered.
	If users answer the question wrong, they can still move on.	We add the coding and users cannot pass if they do not answer questions correctly.
	Users can skip some parts and move on.	We add the coding and users cannot pass if they do not answer questions correctly. Also, we fix the problem by adding some coding. The next mission will not be shown until users click the correct area.
	The camera did not move to the next one.	We fix the problem by rearranging the position of camera.

	Users cannot exit the game.	We add an exit board.

5. Lesson(s) learned.
    a. From trial and error

    In the process of creating the game, we encounter several theme and coding problems. When we decide to work on the project based on the painting Early European Gardens: Autumn Grapes to Wine, we are first deterred by lacking information. We cannot find any description or explanation about the painting; therefore, we change our theme and goal into teaching users the process of winemaking. Another trial is that I spend some time arranging the grape trees in the second scene. Although it is not difficult, I spend some time decorating and looking for the proper pictures. In addition to the theme and decoration, the biggest challenge is coding. The first challenge is to make horses, the goat, and clouds move. Thanks to the professor's PPT and assistance from Joanne, I finally can do the coding to make something move. The second coding challenge is to keep players in the same scene if they do not answer the questions correctly. In the beginning, players can skip some questions and missions or even the first scene to the second. In order not to mislead users, we then correct the coding and make the story move on in order.

    b. From team member(s)

    Since I'm not good at coding, I learn a lot from Joanne and also read the PPT several times. She teaches me how to make the horse and cloud move, how to keep users in the same scene if they do not answer the questions correctly, and how to put speeches in the panels. I also learn a lot from Sandy. Although she is not good at coding either, she spends a long time learning from the PPT and Joanne to improve our game. I appreciate her endeavor on finishing her work in a group. After this big work, I learn many coding skills from Joanne and great perseverance from Sandy.

    c. From other team(s)

    After appreciating games from other groups, I am totally amazed by their hard work. The game designed by group one is easy but interactive and exciting. The users need to escape from the wine cellar and at the same time avoid being caught. This kind of game is easy for all ages of users and players can receive a lot of excitement and happiness through the game. As for the work created by group 2, I appreciate their camera angles very much. They use various angles to make users fly like a bird. Playing the game is like watching a movie. From their work, I find that it will be more attractive to design a game that is easy for all ages of users. Additionally, we can make good use of camera angles to make our game more attractive and more interactive.

6. Most impressive conversation/ event.

I spend a lot of time decorating the grape yard and hiding the biggest grape in one of the trees. After finishing the work, I make my team members do the mission; however, both of them cannot find the grape I hide. Therefore, I then enlarge the grape to make it more obvious.

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