

天主教輔仁大學英國語文學系學士班畢業成果  
ENGLISH DEPARTMENT, FU JEN CATHOLIC UNIVERSITY  
GRADUATION PROJECT 2021

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真善美聖

**Applied Computer Technology and Programming:  
Hanukkah Traditions**



學生：宋欣蔚撰

Shona, Xin-Wei Song

## Interactive mini Game Design

Student ID: 406110073

Name: Shona Song

Group ID: Hanukkah Traditions

|              |  |             |  |
|--------------|--|-------------|--|
| Topic        | Hanukkah Traditions ( Dreidels )   | Teammate(s) | Scarlett Fang 405110777 方芷涵<br>Jenny Kuo 406110750 郭蟬葳 |
| Theme        | Hanukkah Traditions ( Dreidels )   | Location    |  |
| Target Users | College students & People who are interested in Jewish culture / Hanukkah traditions   |             |  |
| Purpose      | To promote the Jewish culture and Hanukkah traditions to the Taiwanese<br>To strengthen cross-cultural communication & understanding<br>Most importantly— Have fun with technology!  |             |  |
| Character(s) | Scene 1: Hamsa / prayers / Star of David / Hanukkiah /dreidels<br>Scene 2: Two prophets<br>Scene 3: A modern family<br>Scene 4: A modern family  |             |  |
| Plot         | <p><b>Scene 1:</b></p> <p>1. Hamsa’s self-introduction &amp; introduce three customs:<br/>People gathered at the western wall, through conversations between the characters, the history and information of this place is introduced. Audience can click on “Hamsa” to choose what activity they want to play, such as lighting the hanukkiah, introducing the dreidels and learning more about the Western Wall.</p> <p>2. Question Panel:</p> <p>1) Light the Hanukkiah<br/>The audience can light the Hanukkiah by clicking on the bottom of the Hanukkiah. Subsequently, the prayers will introduce the rules of lighting the Hanukkiah to the audience.</p> <p>2) Know more about the dreidel<br/>People play dreidel games to celebrate Hannukah. At first, a spinning dreidel will appear in the scene. After that, four pictures representing four sides of dreidels will show up in the setting. The audience can click on each image to explore the meaning of each side of the dreidel. Next, viewers can click on “Happy Hanukkah” to find out what the four sides of the dreidel mean when combined. The text “A miracle happened here” will be magnified from far to near. At last, the viewers will see the further explanation that people say “a great miracle happened here” in Israel, while people say “a great miracle happened there” outside Israel.</p> <p>3) Know more about the Western Wall<br/>The interactive dialogues among the prayers are designed to introduce the significance of the Western Wall and the custom of praying in this sacred site. I</p> |             |  |

|                                |   |
|--------------------------------|---|
|                                | <p>designed this part to let the viewers understand why I chose the Western Wall as my main visual design in the AI game.</p> <p><b>Scene 2:</b><br/>The dialogues between the two prophets are designed to introduce the origins of the Herod’s Temple. This setting allows the audience to travel back in time to visit the Herod’s Temple in person to learn the origin of the Western Wall. By reproducing this architecture, the audience can feel the grandeur and sacredness of this sacred architecture.</p> <p><b>Scene 3:</b> In the third since, the boy says, welcome back to the 21<sup>st</sup> century, then audiences can watch TV and explore the room. While click on the TV, it will ask question “Do you want to watch?”, then by answering “Yes”, audiences can watch an interesting video. Move on, while exploring the room, they will see a plant with coding to grow. Then, by following the instruction of the boy, audiences can click on the characters to see the conversations</p> <p><b>Scene 4:</b><br/>The character will ask questions about the tradition of lighting the hanukkiah and explain the right order to light the hannukiah in order to teach the audience the right order of lighting hanukkiah.</p> |
| <p>Game Play and mechanics</p> | <p>Dimensions of the interactive story design framework (multimedia, interface, education, cultural), or game elements (motivational, interactive, fun, multimedia).<br/>E.g. Challenges/ Activities/ Rewards/ Progression/ Game rules/ Skills</p> <p><b>Scene 1:</b><br/> <b>1) Multimedia:</b> Jewish Holiday Songs. Maoz Tzur (Rock of Ages) - Hanukkah Songs. <a href="https://youtu.be/KgFyCps2XmE">https://youtu.be/KgFyCps2XmE</a><br/> <b>2) Interactive:</b> allow the audience to click on the bottom to light the Hanukkiah<br/> <b>3) Interactive, fun &amp; educational:</b> allow the viewers to click on the dreidel to learn its meaning; By clicking on the “Happy Hannukah”, and magnified text will appear in the scene from far to near. This is an interesting way of presenting the meaning of the dreidel, which is usually played during the Hanukkah.<br/> <b>4) Educational:</b> Dialogues among the prayers are appeared frequently to introduce the rules of lighting the Hanukkiah, the meaning of the dreidel, and the history of the Western Wall.</p> <p><b>Scene 2:</b><br/> <b>Interactive &amp; Fun:</b> The second scene reproduces the Herod’s Temple. Audience can</p>  |

travel in time to listen to the dialogues between two prophets in front of the Herod's Temple. The dialogues are presented in a way that gives the viewers a sense of participating in the conversation of the prayers.

**Scene 3:**

1) **Multimedia:** [https://www.youtube.com/watch?v=S0gbvH\\_LqP4](https://www.youtube.com/watch?v=S0gbvH_LqP4)

YouTube video about Hanukkah customs

2) **Interactive, cultural:** Audiences can click on the character and TV.

Educational: audiences can click on the characters to see the dialogue and learn more about Hanukkah food.

**Scene 4:**

1) **Multimedia:** <https://www.youtube.com/watch?v=fb-tkAet5A>

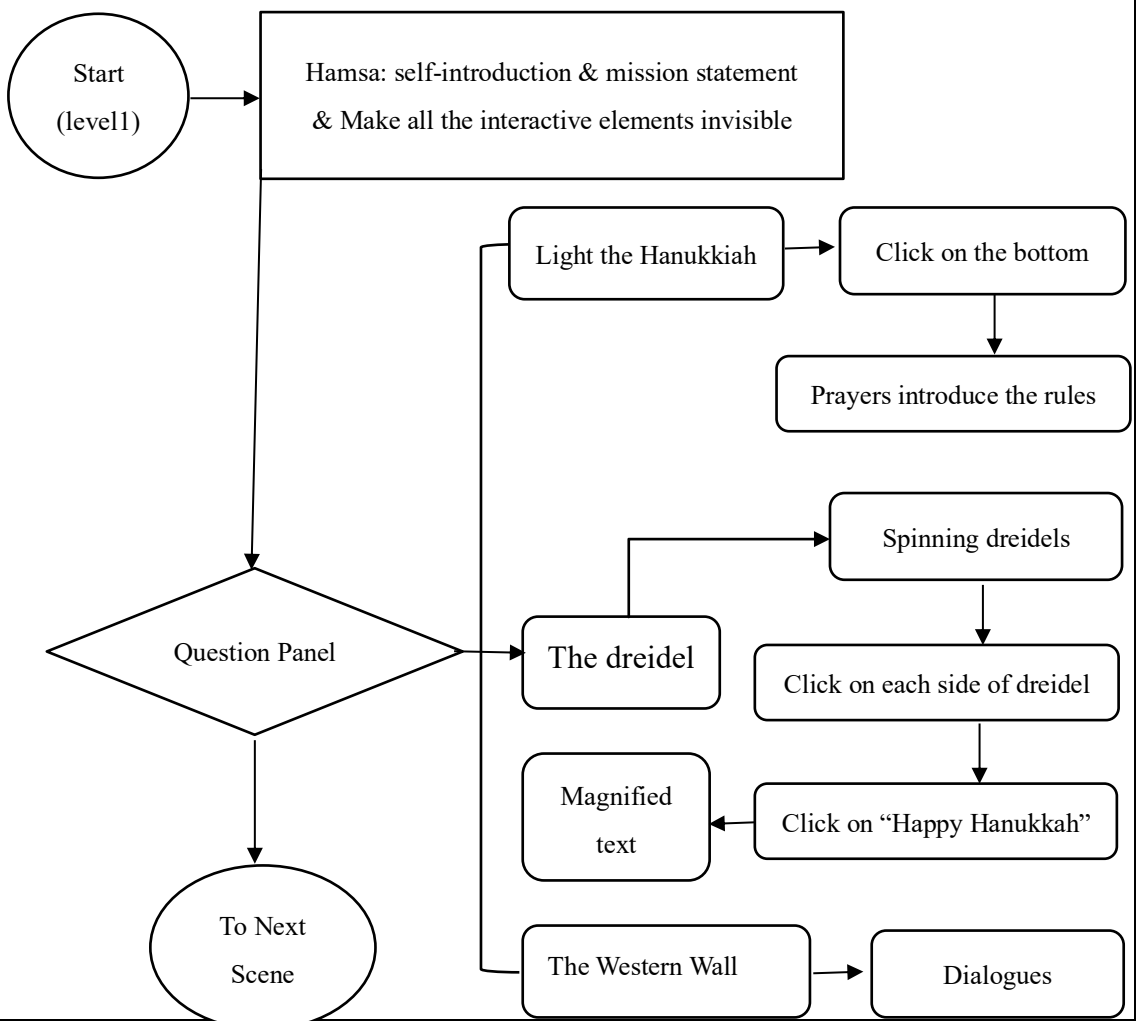
A prayer about hanukkiah

2) **Interactive, cultural:** Audiences can click on the hanukkiah to light it.

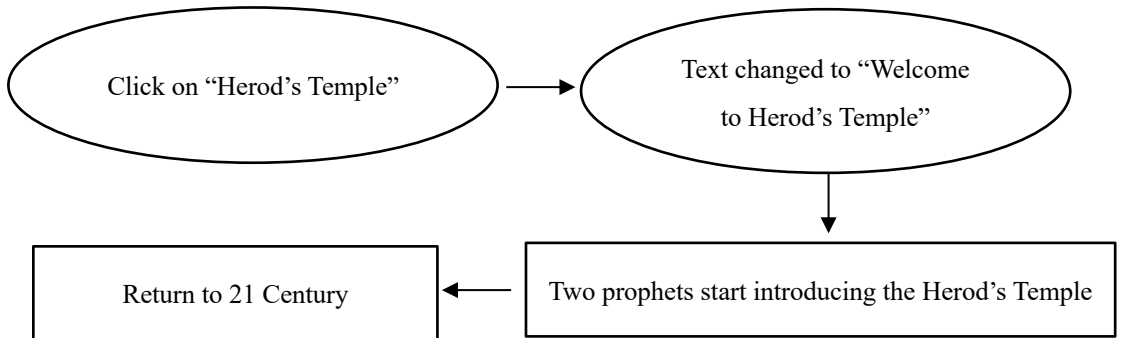
Educational: audiences can click on the characters to see the dialogue and learn more about the culture of lighting the hanukkiah.

**Scene 1:**

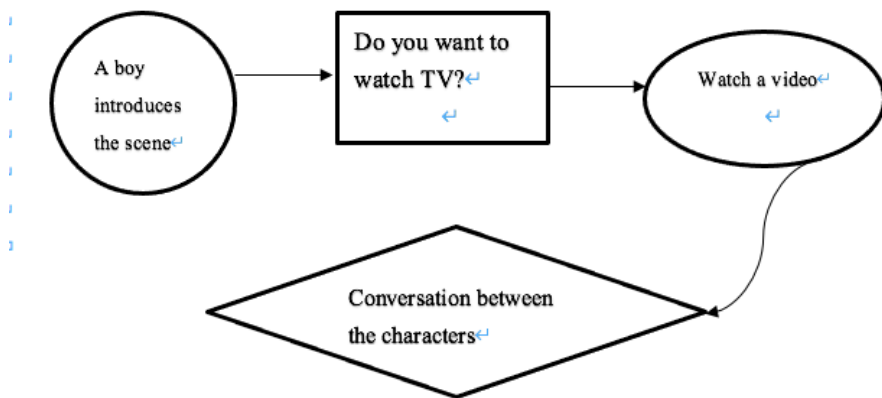
Flowchart



**Scene 2:**

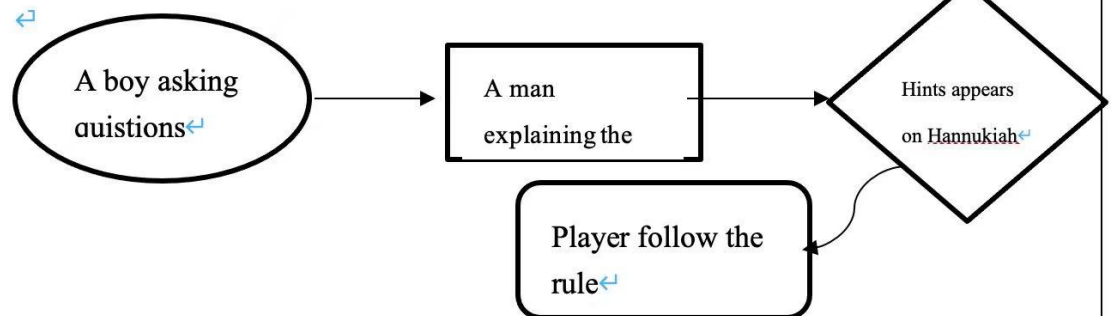


**Scene 3:**

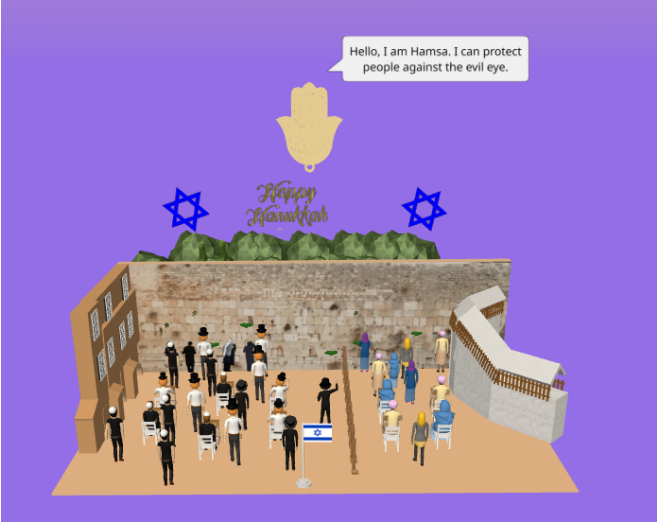



**Scene 4:**

light the Hanukkah: ↵



## Storyboard

| Scene                   | Image   |  | Sound   |
|-------------------------|---|--|---|
|                         | Screen shot   | Description  | Narration/<br>Sound effect/<br>Background music   |
| <p>1.1<br/>Scarlett</p> |    | <p>1. Hamsa's self-introduction: The hamsa is a palm-shaped amulet. The Jewish believe that hamsa can protect people from the evil eye. Therefore, I chose this amulet as the tour guide of my AI game.</p> <p>2. A question panel gives viewers three options to learn more about Hanukkah customs.</p> | <p>Background music:<br/>Jewish Holiday Songs. Maoz Tzur (Rock Of Ages) - Hanukkah Songs.</p> |
| <p>1.2<br/>Scarlett</p> |  | <p>The audience can light the Hanukkiah by clicking on the bottom of the Hanukkiah. Subsequently, the prayers will introduce the rules of lighting the Hanukkiah to the audience.</p>  | <p>Background music:<br/>Jewish Holiday Songs. Maoz Tzur (Rock Of Ages) - Hanukkah Songs.</p> |

1.3  
Scarlett



People play dreidel games to celebrate Hannukah. At first, a spinning dreidel will appear in the scene. After that, four pictures representing four sides of dreidels will show up in the scene. The audience can click on each picture to explore the meaning of each side of the dreidel. Next, viewers can click on “Happy Hanukkah” to find out what the four sides of the dreidel mean when combined.



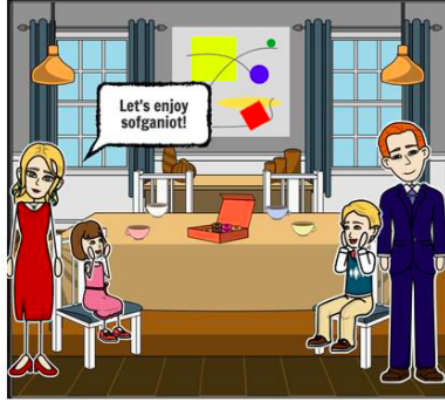
Background music:  
Jewish Holiday Songs. Maoz Tzur (Rock Of Ages) - Hanukkah Songs.

1.4  
Scarlett



The interactive dialogues among the prayers are designed to introduce the significance of the Western Wall and the custom of praying in this sacred site. I designed this part to let the viewers understand why I chose the Western Wall as my main visual design in the AI game.

Background music:  
Jewish Holiday Songs. Maoz Tzur (Rock Of Ages) - Hanukkah Songs.

|                       |   |   |                 |
|-----------------------|---|---|-----------------|
| <p>2<br/>Scarlett</p> |    | <p>The dialogues between two prophets in Herod's Temple are designed. This setting allows the audience to travel back in time to visit the Temple in person to feel the grand</p>                   |                 |
| <p>3<br/>Shona</p>    |   | <p>In this modern scene, some of the family members get together to celebrate Hanukkah and play dreidel game, while the words connect together to be a sentence that "A big miracle was there."</p> | <p>No sound</p> |
| <p>4<br/>Jenny</p>    |  | <p>Initial design<br/>Enjoy sofganiot<br/><br/>Modern Scene:<br/>Light the hanukkiah</p>  | <p>No sound</p> |



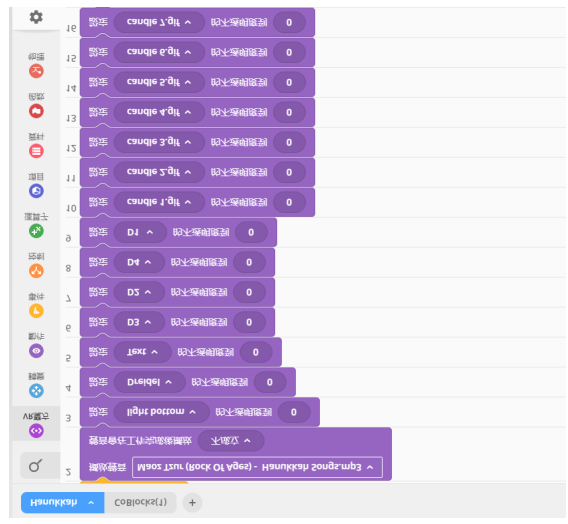
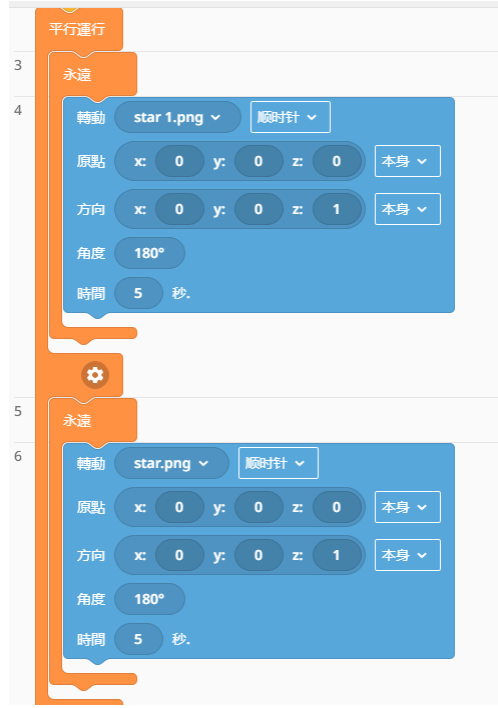
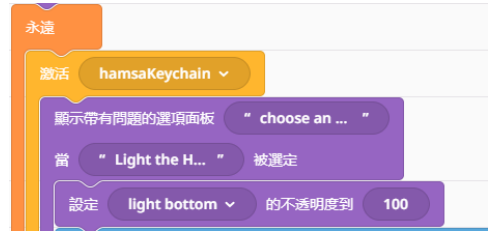


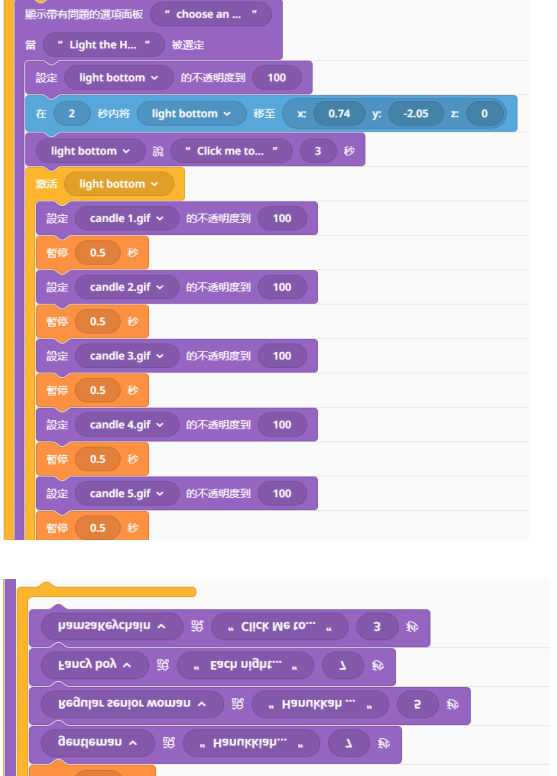
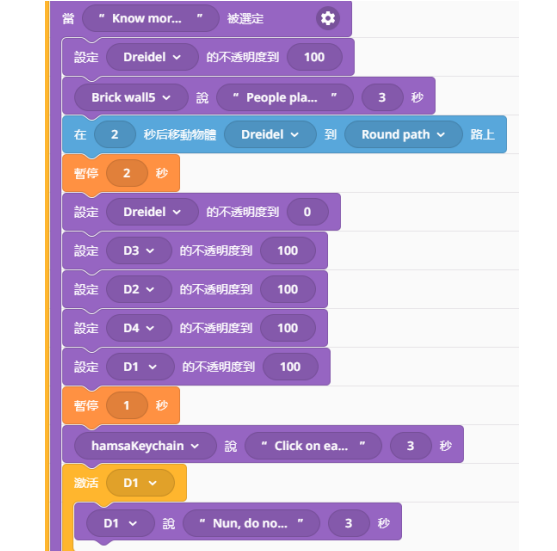
QC Checklist

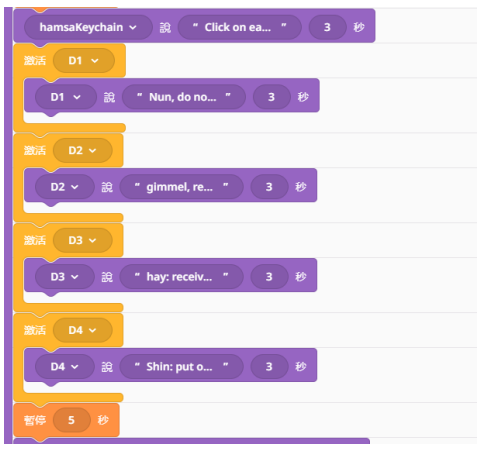
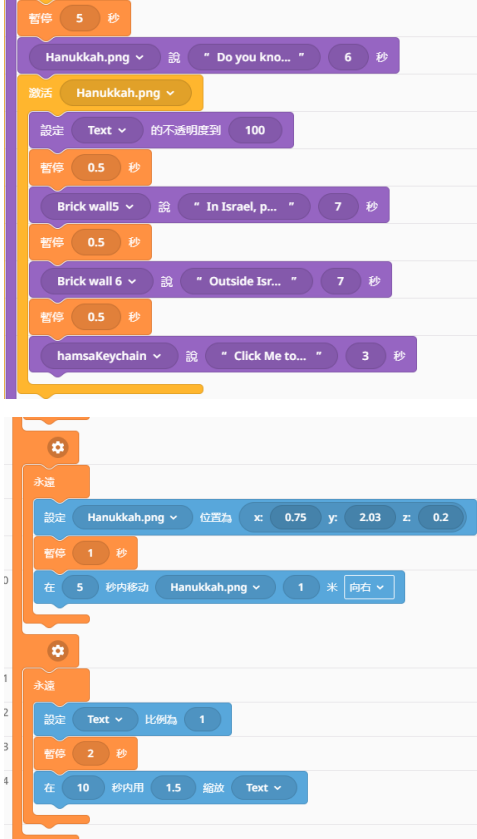
Student ID 406110073

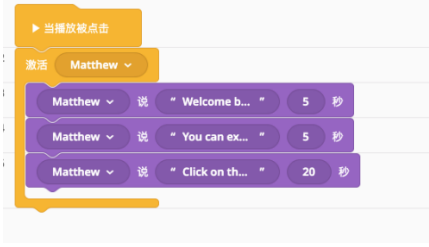
Name: Shona Song 宋欣蔚

Group ID: Hanukkah Traditions

| No.            | Item  | Module  | Result |             |             | Decision  |
|----------------|---|---|--------|-------------|-------------|-----------|
|                |   |   | Pass   | Minor issue | Major issue | Pass/Hold |
| <b>Scene 1</b> |   |   |        |             |             |           |
| 1              | Auto-play music; All the interactive elements are temporarily set invisible     |   | Pass   |             |             | Hold      |
| 2              | Let the decorative elements move from left to right forever                     |   | Pass   |             |             | Hold      |
| 3              | Hamsa's self-introduction<br><br>A question panel will appear after clicking on |  | Pass   |             |             | Hold      |

|          |   |  |             |  |  |             |
|----------|---|--|-------------|--|--|-------------|
| <p>4</p> | <p>“Hamsa”</p> <p><b>If the audience choose to light the Hanukkah:</b></p> <p>Hanukkah will appear from top to bottom</p> <p>Viewers can light the hanukkah by clicking on the bottom. The hanukkah will be lighted according to its rules.</p> <p>Prayers will introduce how to light the hanukkah to the audience</p> |  <p>The code for lighting Hanukkah consists of two main parts. The first part is a loop that shows a menu with the option 'choose an ...'. When 'Light the H...' is selected, it sets the opacity of 'light bottom' to 100, moves it to x: 0.74, y: -2.05, z: 0 within 2 seconds, says 'Click me to...' for 3 seconds, and activates 'light bottom'. This is followed by a sequence of five candles (candle 1.gif to candle 5.gif), each with its opacity set to 100 and a 0.5-second pause. The second part of the code shows a menu with options in Armenian: 'Հանուկյան խնայ', 'Էսպր բոլ', 'Երեւիլի շքեղի մատն', and 'Ձեռքից'. These correspond to 'Click me to...', 'Էսպր լիթը', 'Հանուկյան...', and 'Հանուկյան...' respectively, with durations of 3, 1, 2, and 1 seconds.</p> | <p>Pass</p> |  |  | <p>Hold</p> |
| <p>5</p> | <p><b>If the audience choose to play dreidels:</b></p> <p>A spinning dreidel will appear in the setting;</p>  |  <p>The code for playing dreidels starts with a menu option 'Know mor...' selected. It sets the opacity of 'Dreidel' to 100, says 'People pla...' for 3 seconds, and moves 'Dreidel' to 'Round path' on the 'Round path' layer within 2 seconds, with a 2-second pause. It then sets the opacity of 'Dreidel' to 0 and sets the opacity of 'D3', 'D2', 'D4', and 'D1' to 100. After a 1-second pause, it says 'Click on ea...' for 3 seconds, activates 'D1', and says 'Nun, do no...' for 3 seconds.</p>   | <p>Pass</p> |  |  | <p>Hold</p> |

|   |  |  |      |  |  |      |
|---|--|--|------|--|--|------|
| 6 | <p>The viewers can click on each side of the dreidel to explore its meaning</p>  |  <p>The script starts with a 'Click on hamsaKeychain' event, followed by five 'Click on D1-D4' events. Each event triggers a 'Say' block with a specific Hebrew phrase and a 3-second duration. A final 'Wait 5 seconds' block is at the end.</p>  | Pass |  |  | Hold |
| 7 | <p>Viewers can click on “Happy Hanukah” to explore dreidel’s combined meaning</p> <p>Magnified text “A Great miracle happened here” will move from far to near;</p> <p>The brick wall will make further explanation.</p> |  <p>The script begins with a 'Click on Hanukkah.png' event. It includes a 'Set opacity to 100' block, followed by three 'Click on Brick wall' events, each with a 'Say' block and a 0.5-second wait. A 'Click on hamsaKeychain' event triggers a 'Say' block. Below this, a 'Forever' loop contains: 'Set Hanukkah.png position to x: 0.75, y: 2.03, z: 0.2', 'Wait 1 second', and 'Move Hanukkah.png 1 meter right in 5 seconds'. Another 'Forever' loop contains: 'Set Text scale to 1', 'Wait 2 seconds', and 'Zoom in Text 1.5 times in 10 seconds'.</p> | Pass |  |  | Hold |
| 8 | <p><b>If the audience choose to learn more about the Western Wall:</b></p> <p>The prayers will have a dialogue to introduce the Western Wall</p>   |  <p>The script starts with a 'Click on hamsaKeychain' event. It then features a series of 'Click on' events for 'Brick wall1', 'Senior headscarf woman', 'female', and 'Formal senior man 2', each with a 'Say' block and a 0.5-second wait. The 'female' event has a 10-second duration. The script ends with a 'Click on hamsaKeychain' event and a 'Say' block.</p>  | Pass |  |  | Hold |

| Scene 2 |  |  |      |  |  |      |
|---------|--|--|------|--|--|------|
| 1       | When the audience click on the Herod's Temple, the text will change to "Welcome to Herod's Temple" |  | Pass |  |  | Hold |
| 2       | Two prophets have a dialogue introducing the origin of the Herod's Temple                          |   |      |  |  |      |
| Scene 3 |  |  |      |  |  |      |
| 1       | When click play, Matthew while introduce to audiences what they're going to do                     |   | Pass |  |  | Hold |
| 2       | click on the plant   |   | Pass |  |  | Hold |

|   |  |  |      |  |  |      |
|---|--|--|------|--|--|------|
| 3 | Lamp light   |  | Pass |  |  | Hold |
| 4 | Video play   |  | Pass |  |  | Hold |
| 5 | When click on the food, it will begin the conversation |  | Pass |  |  | Hold |
| 6 | When click on mom, mom and dad will talk               |  | Pass |  |  | Hold |

### Programming Journal

- Articulate your thoughts
- Free up your mind and improve your concentration.
- Records the history of your progress and development

Date: 2021.1.14

Student ID: 406110073

Group ID: 2

#### 1. Project goal/ scope.

1. To promote the Jewish culture and Hanukkah traditions to the Taiwanese
2. To strengthen cross-cultural communication & understanding
3. Most importantly— Have fun with technology!

2. My task(s)

- Make the third scene about introduction of the tradition of Hanukkah
- Initially design the dreidel game but later on change to watch videos
- Add some explanation of the traditional food people eat in Hanukkah — Sufganiyot (ex. original story, custom for education purpose)
- Add conversation between family members
- Move the characters and furniture out of the cube to create more vivid experiences of video introduction and conversation

3. Progress.

| #. | Task description   | Done |
|----|--|------|
| 1  | Add conversation of the boy  | Done |
| 2  | Make the third scene about introduction of the tradition of Hanukkah | Done |
| 3  | Coding of the TV   | Done |
| 4  | Coding of the furniture  | Done |
| 5  | Coding of the food   | Done |
| 6  | Coding about the characters introducing the food                     | Done |

4. Problem solving solutions

| # | Problem encountered   | Solution(s) tried/ other possible solutions  |
|---|---|--|
| 1 | At the beginning, in my scene I decide to make the audiences play the dreidel game, with the rule as the real dreidel game in Israel to experience that culture, while later on I encounter some difficulty of doing the coding and don't know how to make the audiences play that game, and that's quite time-consuming. | With the professor's suggestions, I remove the parts related to dreidel game, but change to watching a video related to Hanukkah tradition and introduce the food. |
| 2 | In the week before the Christmas exhibition of our Cospaces game, I added a house to increase a scene and try to connect our scenes better, but it takes quite a long time to loading the 3d model.   | Remove the house and delete that scene.  |
| 3 | Consider how to connect different scenes.   | Add clue in the conversation from an ancient time to the modern society, saying that we are going to get back to 21 <sup>st</sup> century.                         |

5. Lesson(s) learned.

a. From trial and error

At the beginning, in my scene I decide to make the audiences play the dreidel game, with the rule as the real dreidel game in Israel to experience that culture, while later on I find it's quite difficult for audiences to view the words and understand the rules of that game and actually for me to do the coding of those tasks. While later on through some trials and the suggestion from the professor, I decide to change that scene. And since our first scene is in an outside environment, I kept thinking about how to move from outside to inside more consistent.

b. From team member(s)

I learn a lot from my team member Scarlett. For example, her coding of lighting the candles, having conversations between those people, introducing dreidel sides and press the button to lead to different activities and have more interaction with the audiences.

c. From other team(s)

I think some of the teams are quite innovative and creative, for example, the group build a British Museum is very impressive. They build a beautiful building and lead the audiences to view inside, and the characters in the scene provides a more vivid experience for us as audiences just like getting into a real museum. Besides, the group about Hanukkah that make a scene about Battle between Greek army and Jewish people led by Maccabean family and a scene inside the building-lighting ceremony is very interesting. I do admire that they use different methods to create and narrate the stories and traditions.

6. Most impressive conversation/ event.

Two of the most impressive events are that we shared about our design with people from Prince Hotel and the professors in our department. Since people from other countries may hardly heard about Hanukkah, I feel it's a great honor to introduce the Israel tradition with them and share our work with them. I can feel that some of them really enjoy the game, and the VR experience, while I also found that players may more interested in the design of the scenes and the coding instead of the conversations between the characters in this kind of VR game.