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Pygame Project Architecture Description

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ICS2O7

**Describe what you plan to do under each option in the Main Menu.**

**Option 1 — Instructions:**

Our Pygame is an interactive story where the user will make different choices that will affect the outcome of the story. The instructions option in the main menu will allow the user to read how the story will work and how they will be able to make choices. This option also describes the concept of items, and how they work. There is a return button in the instructions that the user can click to return to the main menu.

**Option 2 — Lesson:**

This option teaches the user how to properly take care if they find themselves in a burning building. The interactive story is ultimately fictional and what happens in the story will not be helpful in reality. The lesson teaches the best options an individual can take in the event of a disaster, and how to proceed from there. There is also going to be another item always there for the user at the bottom right, called the [*Book of Insights*](https://docs.google.com/document/d/1NBZGaHJHomxNB2gGz-fkYJYDBfIs8Q-ReU1sdWtWzK8/edit?usp=sharing), and when clicked, will bring up some information on each disaster. After the lesson, there is an option to return back to the main menu. This can also be accessed during the interactive story itself.

**Option 3 — Play Interactive Story:**

This option from the main menu, if chosen, will start the interactive story. There are several parts to the story as well as eleven unique outcomes, based on their choices, that will be explained below.

**Items:**• Powerful Broom (tornado) (disguised as: vacuum)   
• Shield Bubble (volcano) (disguised as: bubble)  
• Hoverboard (earthquake) (disguised as: skateboard)  
• Durable Wall (tsunami) (disguised as: fence)  
• Lightning Rod (hurricane) (disguised as: stick)

**Item Description:** Certain items are able to resolve or counter a disaster, acting as a “Get Out of Jail Card”. When used for the corresponding disaster, the user is able to skip the options for that section. If the items are used for the wrong disaster, it will be useless. After choosing an item before you start, there will be an icon at the bottom left corner that displays your item.

**Book of Insights:** A book that contains a decent amount of information on each disaster, which can help the user survive.

**Order of Disasters:** Tornado, Volcano, Hurricane, Earthquake, Tsunami

**- Setup:** Before the interactive story starts, you choose one item (from the above list) to keep because the gods are benevolent and generous. You are also given the *Book of Insights*, which has unlimited uses and you can reference it anytime during the game.

- **Level 1:** The user needs to pass the gods’ trial. The first trial consists of surviving a tornado. The user is prompted with three choices: a) save a monkey that’s crying for help outside, b) explore the creepy shack or c) take cover in a random hole.   
  
- **If you chose to save the monkey**, it would lead to Tornado Ending.   
- **If you chose to explore the creepy shack**, you would have found there to be a basement to hide in (leading to Part 2), but it will affect Part 3.   
- **If you chose the random hole**, there is a 25% chance that you would be swept away by the tornado, in which case you would go to Secret Ending 1. Otherwise, you would move on to Part 2.   
- **If you chose to use your Powerful Broom item**, you are guaranteed to move on to Part 2.

- **Level 2:** After successfully surviving the tornado you climb out the hole when you see that the dormant volcano behind you suddenly becomes active. You realize that even though the lava can’t reach you, the ash will. The user has to make a decision to either a) craft a mask, or b) run away from the ash.   
  
- **If you chose to craft a mask**, there is a 15% chance you won’t be able to craft it in time and inhale too much volcanic ash. It would lead to Volcano Ending 1. Otherwise it would lead you to Part 3.   
- **If you chose to run away from the ash**, there is a 75% chance for pyroclastic flow to catch up to you. It would lead to Volcano Ending 2.   
- **If you chose to use the Indestructible Bubble item**, you are guaranteed to move on to Part 3.

-  **Level 3:** That was a close one! Gasping for air, you plead to the gods saying that you’ve learned your lesson, but no response comes. And to make matters worse, the ground below you starts shaking uncontrollably as you realize you are now being challenged with an earthquake. The user must choose from the following options: a) hide in the basement, b) take cover in the dark, spooky cave near you, or c) stop, drop, and pray.  
  
- **If you chose to hide in the basement**, the outcome varies depending on if you already hid there in Part 1. If so, there is a 60% chance the shack would have already collapsed by the time you get there, making it impossible to get in. In this scenario there is an additional 75% chance that you are redirected back to the start of Part 3, without option a). Otherwise, it would lead to Earthquake Ending. If you did not hide there in Part 1, you are able to safely hide in the basement which leads you to Part 4.   
- **If you chose to take cover in the dark, spooky cave**, there is a 30% chance that within this cave lives the Minotaur, which would lead to Secret Ending 2. Otherwise, you move on to Part 4.   
- **If you chose to stop, drop, and pray**, there is a 25% chance you survive (and move on to Part 4), and 25% chance that the gods will hear you (in which case you would go to Secret Ending 1). Otherwise it would lead to Earthquake Ending.   
- **If you chose to use your Hoverboard item**, you are guaranteed to *hover* during the duration of the earthquake, leading you to Part 4 successfully.

- **Level 4:** After the earthquake, the ensuing aftershocks create a tsunami. Without warning, the first wave of the tsunami comes and submerges the land, and you are caught in it. The game warns the user that there is no telling when the main wave of the tsunami will arrive, so the user is left with two options. The user is prompted with a plethora of options: a) choose to swim to a non-submerged part of the island, b) hang on a drifting piece of wood, and slowly make their way towards land, c) climb to the top of a nearby [submerged] palm tree, d) collect materials floating in the water, or e) crawl to the top of the volcano.   
  
- **If you chose to swim to a non-submerged part of the island**, there is a 50% chance you will be swept away by the tsunami, which would lead to Tsunami Ending. Otherwise, you would go to Part 5.   
- **If you chose to hang on a drifting piece of wood**, there is a 30% chance it leads to Tsunami Ending. Otherwise, you would go to Part 5. Your piece of wood eventually makes it to shore.   
- **If you chose to climb to the top of a nearby tree**, there is a 20% chance that you would be swept away, leading to Tsunami Ending. Otherwise, you would go to Part 5. You eventually make it to shore.   
- If you chose to collect materials floating in the water, you build a treehouse (assembling it onto the palm tree), and move onto Part 5.  
- **If you chose to crawl to the top of the (now dormant) volcano**, there is a 20% chance that the water levels would rise high enough to submerge you, which would lead to Secret Ending 3. Otherwise, it would lead to Survival Ending 1.   
- **If you chose to use your Durable Wall item**, you are granted safe passage to Part 5.

- **Level 5:** Well, that was fun. The gods are pleased with you and offer one last challenge. A plane flies over you but fails to notice the screaming person below. Abruptly, a mixture of thunderstorms, wind and rain clashes onto you. The user must type in the correct order of placement in the text boxes below the options and submit the answers.   
  
1) Find materials  
2) Build a boat  
3) Take cover until the eye of the storm reaches you  
4) Stay within the eye of the storm   
  
- **If the user is able to arrange the tiles correctly**, it will lead them to Survival Ending 2. Otherwise, it will lead them to Hurricane Ending.  
- **If you chose to use your Lightning Rod item**, it will lead them to Survival Ending 2.   
There are three different outcomes/endings to this interactive story which will be covered below. You either die, survive, or achieve a secret ending (which usually still ends with death).

[Death Endings]

**- Tornado Ending:** You chose to go save the monkey. As you reach him, you pick him up and also realize that you’re being picked up. Turns out, the tornado had caught up to you guys, so as you’re flying through the air while cuddling with the baby monkey, some final thoughts flow through your head. I hope you end up meeting the Wizard of Oz!

- **Volcano Ending 1:** After inhaling too much volcanic ash, you start coughing, and coughing, until you start losing consciousness. And slowly, as you leave this world, the last thought you will ever have is praying pathetically to the gods. A fiery blaze engulfs you, as the land below you reveals itself to be a dangerous geothermal area.

**- Volcano Ending 2:** You die a fiery death, but at least you went down in style, by drowning in a pool of burning lava! The lava was a comfortable 1250°, just a little over your average hot tub. Yet again, you realize you shouldn’t have stolen the Hades’s pet dog, Cerberus.

**- Earthquake Ending:** The ground below you cracks open and you fall into an endless pit. And that was when you realized you probably shouldn’t have taken Hades’ favourite helmet!

**- Tsunami Ending:** Navigating the fully submerged island, you hear a loud sound as you turn around and discover a huge wave of water building up. With one final look at the sun, you apologize to the gods as you choke on water.

**- Hurricane Ending**: The endless swirls of water, rain, and thunder eventually was too much for you to handle.

[Secret Endings]

**- Secret Ending 1:** Praying, you beg Zeus to spare you. And suddenly, you are at Mount Olympus. You get on your knees, thanking the gods when you realize Zeus had something else in mind.

**- Secret Ending 2:** Hiding in the cave, you think you are safe when you hear a low, grumbling voice behind you. Slowly turning around, you see the monstrosity which is the Minotaur. The two-horned creature grabs you and eats you for dinner. And that, kids, is why you should never enter a dark cave!

- **Secret Ending 3:** Wondering how water levels could rise so high, you are submerged underwater where it is revealed that Poseidon has taken a liking towards you. You are made into an immortal and forced to work for Poseidon for the rest of your eternal life.

[Survival Endings]

- **Survival Ending 1:** You reach the peak of the volcano, but also carefully avoid falling in. And suddenly, a plane flies past you. Waving your hands like a madman, the pilot sees you and picks you up. You survived!

- **Survival Ending 2:** The hurricane passes and you finally open your eyes. Hooray! You survived! The gods congratulate you and you go back to your normal life. This time, you shouldn’t anger the gods.

**Option 4 — Quiz:**

This option in the main menu allows the user to take a mini quiz on the lesson. The questions will be multiple-choice based on the lesson and the user will get their result and total of points.

**- Question 1:** Where is the best place to go when there’s a tornado? **Ans:** Basement  
Options:  
1. Basement  
2. On top of a mountain  
3. The ocean  
4. Under a tree  
  
**- Question 2:** When in water during a tsunami, what’s the best course of action? **Ans:** Hold on to something.  
Options:  
1. Go underwater  
2. Hold on to something  
3. Swim away  
  
**- Question 3:** Geothermal land is safe to cross during a volcanic eruption. **Ans:** False   
Options:  
1. True  
2. False

**- Question 4:** In the event of an Earthquake, is it safe to take cover underneath a sturdy table? **Ans:** Yes  
Options:  
1. Yes  
2. No  
3. Why take cover?

**- Question 5:** If you’re already caught in a hurricane, what’s the safest place to head towards? **Ans:** The eye of the storm  
1. Where the clouds are  
2. Through the hurricane!  
3. Eye of the storm

4. Stay in one place

**Option 5 — Quit:**

This is an option where the user can choose to quit the pygame. If the user decides to choose this option, the pygame will show all the resources used and exit.

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