Team 08

The Game-Making Process

How did we make the game?

- We created the game by writing code in a program known as PyCharm. PyCharm is a development environment that uses the programming language Python. Using many different **classes** and **methods** and through the process of teamwork, we were able to successfully pull together a functional game.

What are classes and methods?

- A class is basically a blueprint that allows for objects to be created. A method is something that allows for that object that was created by that class to do stuff. There is a variety of different methods that can be used or created for an object. A common method we used was **Draw()**, which was a method that allowed the object to draw and blit itself onto the screen.

What was our procedure?

- We started this project by planning out what we would need to create the game such as required classes and the methods within the classes. We then went to typing. We each took turns typing. This allowed us to avoid merge conflict when we committed the code to the cloud (though we still did run into a few conflicts). Throughout the project, ideas and classes changed quite a bit. But in the end, we were able to pull together a semi-coherent game.

Team "Locked out of RHIT"

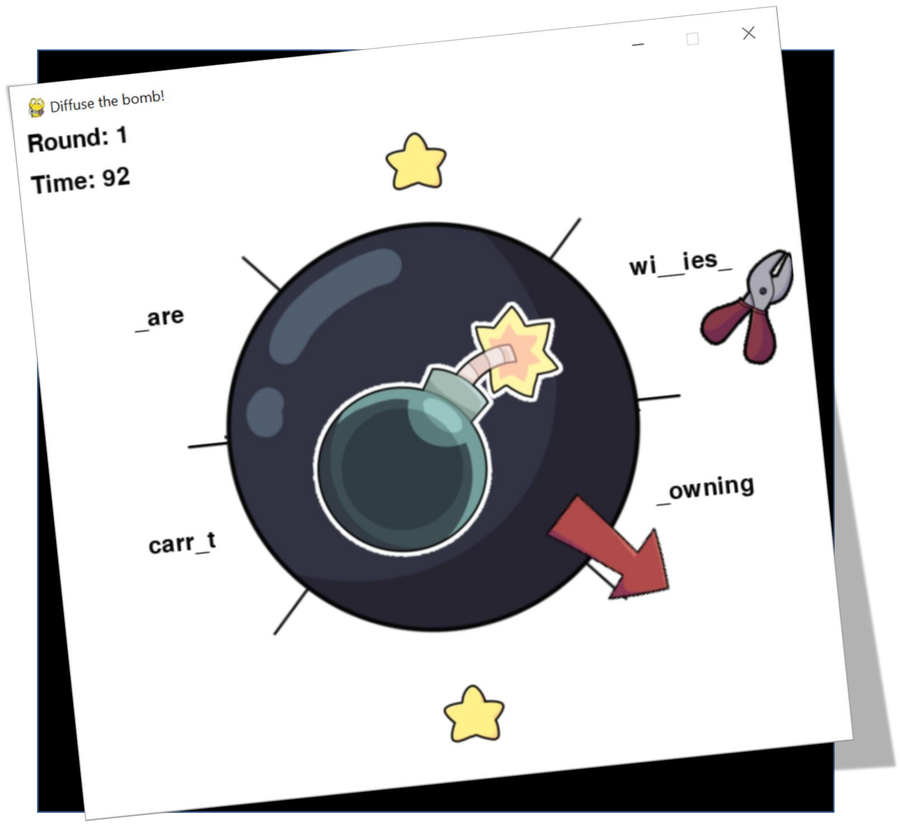
Autumn , Maria , and Spencer

Welcome to "*Defuse the Bomb!*"

Our game is about diffusing a bomb by completing the words that pop up around it by typing the missing letters.

How to play -

- When the game starts, you will see an image similar to the one below. There will be an arrow spinning around the bomb, pointing at the words that have appeared around it. The word that you need to be targeting will be marked with a pair of wire cutters. You need to hit the word with the missing letter when the arrow points at it. Words that you have hit are marked with a star. If you miss your target, you'll lose one of your lives. If you lose all of your lives or you run out of time, it's game over.



ROSE-HULMAN INSTITUTE OF TECHNOLOGY

Operation Catapult 2021

Who did what?

Programming
- Spencer
- Autumn
- Maria

Sounds
- Minecraft

Graphics
- Autumn

What did we learn?

- We learned how to code in Python using PyCharm and how to use classes and methods to create a functional game.

```
class Game:
    def __init__(self):
        self.round = 1
        self.lives = 3
        self.feedback_message = ""
        self.word_generator = Word_Generator()
        self.missing_letters, self.display_words = self.word_generator.generate_words(6)
        self.active_index = random.randrange(0, 6)
        self.is_card_active = [True, True, True, True, True, True]
        self.round_start_time = time.time()
        self.round_durations = [120, 90, 60, 45, 30, 15]
        self.angle = 0

    def reset(self):
        self.round = 1
        self.lives = 3
        self.feedback_message = ""
        self.missing_letters, self.display_words = self.word_generator.generate_words(6)
        self.active_index = random.randrange(0, 6)
        self.is_card_active = [True, True, True, True, True, True]
        self.round_start_time = time.time()
        # self.round_durations = [120, 90, 60, 45, 30, 15]
        self.angle = 0

    def start_next_round(self):
        self.round = self.round + 1
        self.round_start_time = time.time()
        self.missing_letters, self.display_words = self.word_generator.generate_words(6)
        self.active_index = random.randrange(0, 6)
```