Defuse the Bomb

A CSC 102 Project

Team: <Rohan Khanal, Edwin Melgar, Tarun Vigneswaran>

GitHub: <https://github.com/tarunvignes/Bomb-Project-for-CSC102/blob/main/bomb_phases.py>

BOMB DEFUSAL WRITE-UP

Version 1

Verification Code: <enter your code>

# Team individualization

What did you tweak to the design provided by your instructor that makes it different from the other teams? In other words, what did you do to make your version of the “bomb” unique?

The ways in which we made our bomb unique and different was that for the strikes, we made it start with 5 chances and the amount that you receive, a sound will be played. And for our buttons, we decided to have three colors, red, green, and blue, where:

* For red, it needs to only be pressed once for it to be defused and as usual, we can just release it at any time.
* For green, we created a sequence of prime numbers from 1 to 60 where this button needs to be pressed when the number of seconds on the timer matches with one of the sequence numbers to defuse. The reason why the sequence is from 1 to 60 is because there’s 60 seconds in a minute.
* And then for blue, it’s basically the same procedure as for the green button but this time we used Fibonacci numbers, or an arithmetic sequence from 1 to 60.

# Future development plans

If you were to continue working on this project, what would you do? Where could you go from here to make it better, more interesting, more fun? What could be done to increase the project’s broader impact (e.g., to make it marketable)?

If we were to continue with this project, we would

# Lessons learned

What did you learn by working on the project throughout the course? In your opinion, did it relate to *The Science of Computing* curriculum (and, if so, how)? How was the experience beneficial to problem solving in general? What did you learn that will benefit you in future courses in the Computer Science curriculum?

By working on this final project, we learned how to make a bomb and defuse it. We think this does relate to our class curriculum, because the coding here is much more complex and as a class, we really had to analyze the source code of the bomb and to really understand the syntaxes and the functions, what they do, and what parameters we need, etc. In CSC 101, we were taught the basics of programming and we’ve realized that it’s only going to get harder from here. This experience is beneficial to problem solving because it requires us to really use our heads very carefully when trying to decode certain puzzles and algorithms in Python.

In future computer science classes, I think what we learned that will benefit us in the future is probably all the different coding styles because this year, we’ve learned a lot of new python libraries and functions and the tasks that they do. We also learned that we should always come up with our own ideas and be creative when working on projects like these because even the silliest ideas may even turn out to be really good ideas and so we should frequently say what’s on our minds.