**Bomber Girl**

**The Report**

**Introduction**

I thought a lot on what game I should make. Wondered if I should try making something simple like minesweeper or go deeper and make something else. When I remembered the game “Bomberman” from my childhood I knew that I had no other choice. The way it worked matched the requirements of this project perfectly and I thought that it would be a great challenge for myself as a programmer to try to implement it with C#, a language that I have never touched before.

**Main problems faced**

One of the main issues while programming this game was my lack of knowledge on how to use graphics in C#. I knew that there is such a thing as the XNA game development tool kit for C# that is really popular with the game developers for C#, but I could not use it as it required extra downloadable tools. Later, I faced an issue with flickering which caused a white screen to be drawn for a few milliseconds on each frame drawn. Furthermore, I had to figure out what sprites to use, how to implement them with sprite sheets and where to find them. Finally, one of the biggest issues I have faced was trying to draw the explosions so that they would not cut off each other while exploding. Trust me, it was not as easy as it sounds.

**Solutions**

I researched the graphics issue and found that C# has a built in Graphics handler called GDI+. I researched on how it works and realised it is not quite different from the other frameworks I have used for creating graphics in the past (just a bit less powerful). That led to a great start. The flickering, though, was a big headache. I had to rewrite the way I approached the graphics being drawn for a few times until I finally got it right. The solution to the flickering problem was to enable “Double Buffering” inside the C# Form. It causes the frame to be redrawn on top rather than behind the currently shown frame and removes the flickering issue completely. The sprites used were found on various locations on the Internet (those are specified in the “Credits” section of the “About” menu strip). Some of them I had to draw by myself. The final issue with the explosions was solved by completely rewriting how my bombs worked. I created a structure for the bombs and decided to store all of the bombs placed in a linked list. That made handling bombs and explosions easier.

**Conclusion**

When I started doing this project I have already had previous experience of game development. I want to become a great game developer one day and so I have already made games like: “Tetris” “Pac-man” and a few originals on my free time. This means that the logic for the game was not completely new for me and so it made the whole process easier. I am proud to add this project to my collection as it came out great.

All in all, this project was a good challenge. It had everything – fun, excitement, difficulty, trickiness and so on. It even tested my artistic side.

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