

**Report for CSE 115 Project Update**  
**Faculty: Mohammad Shifat-E-Rabbi (MSRb)**

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**Language Used: C**  
**Reporting Duration: 21 September to 4 November**

**Project Group: 8 (Space Invaders Clone)**

**Week 1 (21 SEPT – 27 SEPT) :** Our faculty Mohammad Shifat-E-Rabbi sir introduced the project and explained the requirements and how we're supposed to work on it. During this week, I got introduced to my new classmates and formed a team of four members to collaborate on the C project.

**Week 2 (28 SEPT – 3 OCT) :** After going through the project list, I suggested on selecting project 8 for our project as I myself am a gamer, it caught my attention the most. We finalized our team members and confirmed our entry on the spreadsheet provided by our faculty and decided on the project topic from the 10 given topics — a Space Invaders Clone which was at group 8. At first it was taken by some other team but then we noticed they shifted on another project and we took 8 right away. The idea was to create a simple terminal-based game where a spaceship could shoot enemies.

**Week 3 (4 OCT – 10 OCT) :** Me along with my project mates researched different approaches to implementing games using only C. We explored how to use the console for graphics simulation, movement, and input handling. Each member installed tools like Code::Blocks and GCC for compiling and testing.

**Week 4 (11 OCT – 17 OCT) :** After further discussions, we decided that each member would first build an individual version of the game. Later, we would merge the best parts of each implementation to form the final project.

**Week 5 (18 OCT – 25 OCT) :** This week I focused on developing the spaceship and enemy rendering logic using nested loops and ASCII characters. I used simple coordinate variables for movement and handled user input with functions like `getch()` from `<conio.h>`. Minor issues occurred with screen refresh and timing, which I managed using `system('cls')` and `Sleep()` taking help from some open source projects from Github. I also opened a Github repository and gave collaborator access to my teammates as we were supposed to submit the project via Github link.

**Week 6 (26 OCT – 5 NOV) :** By this week, we all have individual terminal-based prototypes with movement, shooting, and basic collision detection. I'm planning on adding different colors for my spaceship and enemy spaceship next so that it's more identifiable. I'm also researching on different libraries to make the game more realistic. The next goal is to see the works of my teammates and merge features and refine the overall gameplay mechanics.