INTO the Unknown



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Course:

CSC-102 Programming Fundamentals

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Here you can find the major parts of your Proposal documentation

Short Description of your project

I wanted to create a game that is fun to play. I had this idea a two to three years backs and now I finally have the skills to fulfill my project plans. In this game u play as a ship lost in space and your goal is to survive as long as possible. You need to collect space energy to charge your cannons, dodge meteors, use your cannon to break through blockades.

Game Characters Description

- 1. Ship :- this is u the player.
- 2. Meterors :- These are space rocks moving towards u. You must dodge them or ship will get destroyed.
- 3. Moon :- These are large space bodies
- 4. Blockades:- These are here to stop u from moving and u can destroy them by shooting.

Game Objects Description

- 1. Space energy:- U can collect this energy to charge your cannons.
- 2. Laser residue:- U can also collect the residue left by your lasers to charge them up again.

Rules

- 1. Survive for as long as possible
- 2. Dodge all rocks
- 3. Try to collect all space energy
- 4. Try to survive

Goal of the Game

Survive For Long as possible.

Wireframes



Figure 1: Start Screen

```
CONTROLS
MOVE LEFT :- left arrow key
MOVE RIGHT :- right arrow key
FIRE :- up arrow key

Things to note:-
Need 10 space energy to fire cannon
You can collect residue of laser canon to charge canon again
You can break blockkades using your cannon
```

Figure 2: Controls menu

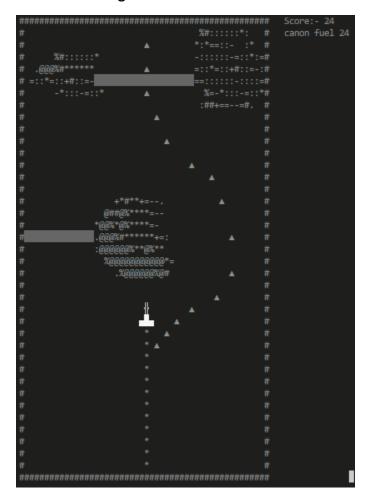


Figure 3: Game Play

Data Structures (Parallel Arrays)

char screen[screen_h][screen_l]
char buffer[screen_h][screen_l]
char Gameover_screen[screen_h][screen_l]
char randArrays[3][screen_h][screen_l]

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Function Prototypes

```
int random_function(int total_options);
void cursor_hide();
void clearConsole();
void gotoxy(int x, int y);
void print border();
void print_Array(char screen[screen_h][screen_l]);
void moveDown(char screen[screen_h][screen_l], char buffer[screen_h][screen_l], char
randArrays[3][screen_h][screen_l]);
void printheader();
void erase_player(char screen[screen_h][screen_l]);
void print_player(char screen[screen_h][screen_l]);
void move_player(char screen[screen_h][screen_l], int direction,bool input);
void check_player_input(char screen[screen_h][screen_l]);
void player_visuals();
char checkCollision(char screen[screen_h][screen_l], int x, int y);
bool scoreCollision(char screen[screen_h][screen_l], int x, int y);
void fire_laser(char screen[screen_h][screen_l], int& laserY, bool& laserActive);
void move_laser(char screen[screen_h][screen_l], int& laserY, bool& laserActive);
```