

In this game programming assignment, you can work alone or as a team of two. You also have a choice. From the following two problem statements, implement any one of your interest.

### Submission instructions –

1. A short report (max one page) about your game. You must mention the other team member's name, if there is any. Only one submission per team.
2. All resources and code to play your game.
3. Include a help file, if necessary.

### Option I – Space Fighter

**Game description:** – Space Fighter would be a two-dimensional fixed shooter game in which the player controls an airship by moving it horizontally across the bottom of the screen and firing at descending aliens. The alien ships move mainly vertically (top-to-bottom) and occasionally horizontally (left-to-right or right-to-left) across the screen. Both the player and alien will shoot each other using laser cannon or fire or others (your choice). The player defeats an alien, and earns points, by shooting it with laser cannon. When an alien hits the player, either the strength can be reduced or points can be subtracted (your choice).



### Some points to consider –

1. In the screen there will be always three (3) aliens. If an alien crosses the bottom of the screen, add another one from the top. If an alien moves out of the side screen, change its direction (left-to-right or right-to-left). Or use any sensible movements.
2. Alien should move randomly (any practical intelligence would be enough)
3. Add reasonable winning and losing condition for the game.
4. Add sound where appropriate.
5. For asset you can either build your own or use available (free) online images.

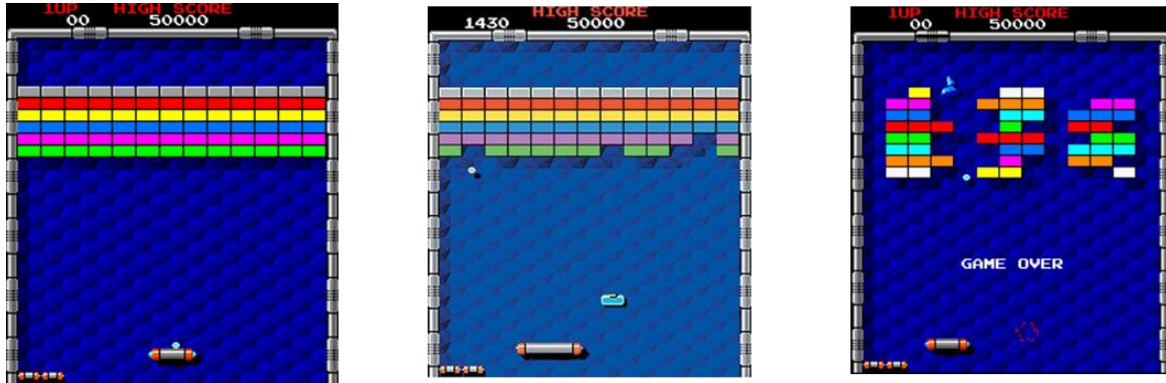
### Technology –

You can use any of the following technologies

- Game Maker Studio
- XNA
- Unity

## Option II - Arcade Game - Arkanoid

**Game description:** – Arkanoid is a breakout arcade game. The player controls the "Vaus", a space vessel that acts as the game's "paddle" which prevents a ball from falling from the playing field, attempting to bounce it against a number of bricks. The ball striking a brick causes the brick to disappear. When all the bricks are gone, the player goes to the next level, where another pattern of bricks appears (Source Wiki). It has various features such as power ups, different kinds of bricks, variety of layouts etc. making the gameplay more engaging. Some of the screenshots of the gameplay are as follows:



**Task to do:** You will build a similar breakout arcade game. It will be a single player game. You are free to choose your layout design. Make it more interesting by adding power ups, sounds, and etc. You have to maintain score and number of lives in your screen.

### Game expectations –

- Power ups like expand the Vaus, different kind of tiles and bonus life.
- Gradually increase ball speed when there are few tiles remaining.
- Add sounds on tile hit and power up. Background sound can also be added.

### Technology –

You can use any of the following technologies

- Game Maker Studio (easy and quick to learn, will be helpful in future for quick prototype building)
- XNA
- Unity