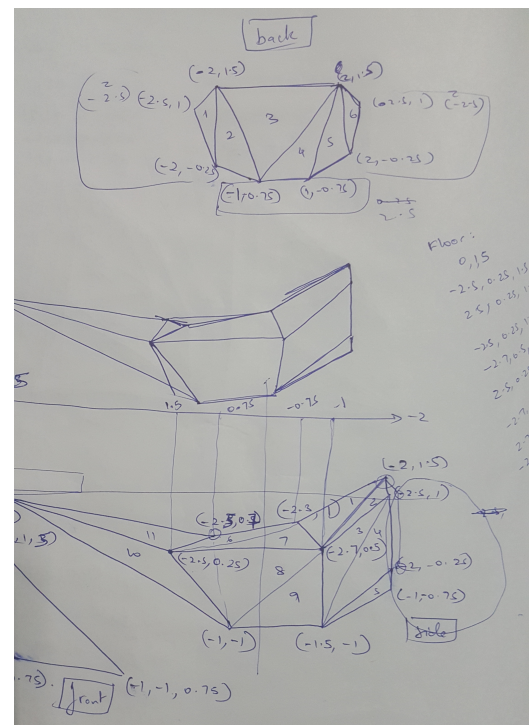


Controls

Arrow keys	movement
W/S	canon aim controls
F	fire
C	change view
cursor movement (in heli cam view)	look around
scroll (in heli cam view)	transverse
P/O	toggle b/w perspective/orthogonal projections
B	boost
Space	jump

Bonus implemented:

1. The **sea** is made of **four layers, 3 translucent layer** and an **opaque layer**. The translucent layers gives the **effect of submergence** and the **feel of depth** in water.
2. **Translucent sail**, to make sure the view is not obscured.
3. Dynamic **health bar** and **boost bar**.
4. **Realistic collisions**, boat movements based on **Simple Harmonic Motions along multiple axes**, which give the **floating effect**. Water level can sometimes be higher than the boat because of **SHM**, all of those effects are properly captured.
5. **Realistic boat** constructed by defining points and planes by hand.(screenshot attached)
6. **Horizons** in ocean, the horizons have a much deeper color always giving the feel of the vastness of the ocean.
7. **Clever monsters**, they can **aim** and **shoot**.
8. **Score** is displayed next to the boat.



Compiling & Executing

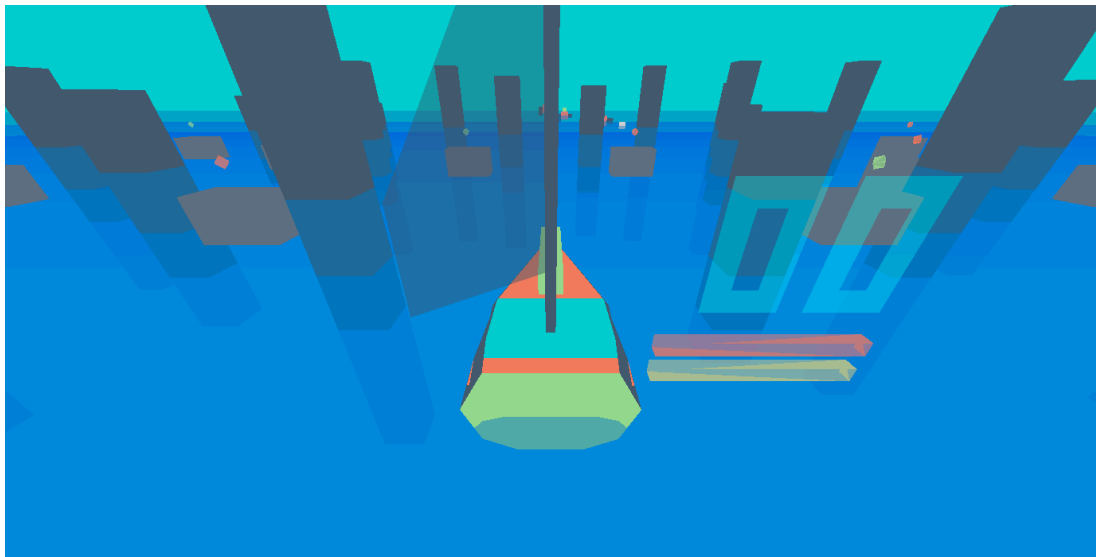
1. mkdir build
2. cd build
3. cmake ..
4. make
5. ./graphics_assgn1

Info

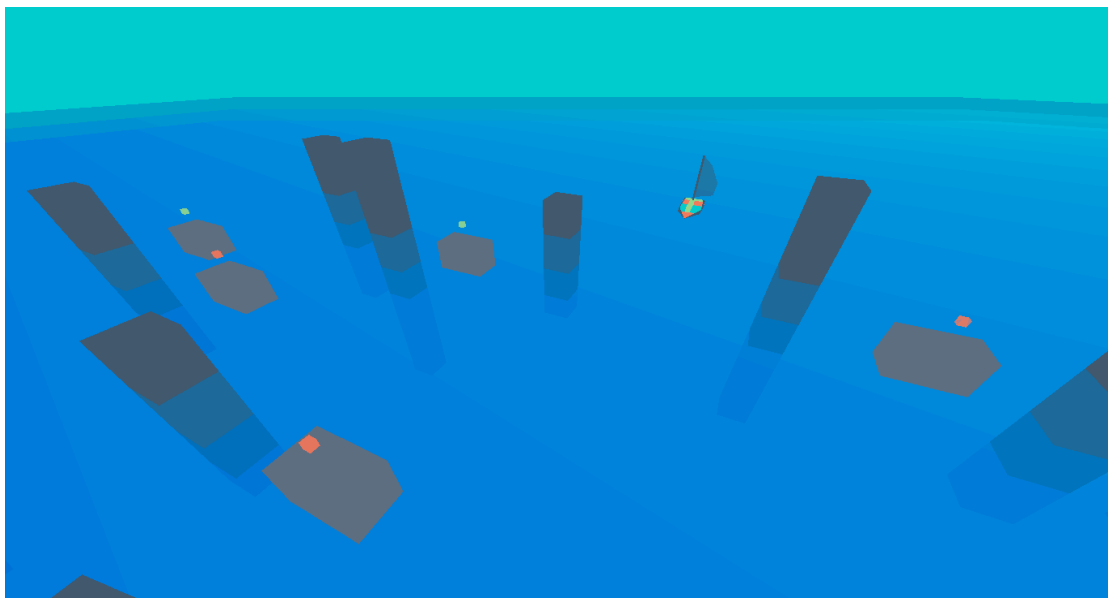
1. **Red** bar indicates **life**, red coloured collectibles indicate life points.
2. **White** bar indicates **boost**, and white coloured collectibles indicate boost points.
3. There are **3** different **types of monsters**. They can be classified as those that:
 1. Can only move horizontally.
 2. Random movements.
 3. Boss.
4. **Collision with rocks damage** the **boat** and reduce life.
5. **Collectibles** on floating barrels can be **collected only by jumping** over them.
6. **Monsters shoot at your current location**, so moving towards the monsters or staying still increases the probability of getting shot at.
7. All cam views have been implemented.
8. Scoring:
 1. Killing monsters give you 10 points.
 2. Collectibles give 1 point.
 3. Boss monster is worth 20 points.

Screenshots

1. Follow cam view:



2. Helicopter cam view:



3. Boat view:



4. The horizon effect:

