Student 1: Yap Kian San   ID: 18001106   Course: COE

Student 2: Yap Kian Shui ID: 18001084   Course: COE

OOP Project

Tower Defense Project

How we make the 'Tower defense game'?

libs-Java AWT(Abstract Window Toolkit)

First, making the layout in Class Frame by Inheritance.

About the layout

```
class Frame
-The Frame is the container that contain title bar and can have menu bars.
-class Frame extends Jframe

class Screen
    -screen which draw stuff
        -setting graphics(background, images, etc…)
        -draw room,store
    -class Screen extends Jpanel
    -The Panel is the container that doesn't contain title bar and menu bars.
    -spawn monster
    -shoting
    -change level

class Room
    -load up all different level we create
    -we grid which made up of rectangle boxes (8 column x 12 rows)
    -road for monsters to walk and the map

class Block
    -class Block extends Rectangle
    -shoting

class Value
    -all the values we used for our drawing

class Store
    -shop for tower
    -draw player health and coin

class KeyHandel
    -gives us the mouse position
    -class KeyHandel implements MouseMotionListener, MouseListener
```

File Save -mission layout

```
class Save
    -load mission layout file
```

After the layout is done.

Then, we make the class of monsters.

```
Class Mob
    -class Mob extends Rectangle
    -spawn monster
    -monster moves
    -walk according to layout
    -monster health
    -health deduction
    -check if monster died
    -delete monster
    -get Coin
```
And Shoting

```
Shoting
    -build tower with mouse
        -tower price
        -shoting range(rectangle)
    -deduct monster's health
    -gain money when kill
```
Proceed to next level

```
check killed monsters with winning condition
    -proceed to next level
    -WIN
```

The Game play screenshots are as follows:

Enemy 3/3

You won! Congratulation!

Loading next level...

Tower defense

Enemy 0/5

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