Android Application

1 HOUR HERE IS 7 YEARS ON EARTH

GREAT. I'LL WAIT HERE FOR MY GRADLE BUILD TO COMPLETE.

My experience starting android app development.

Submit by:

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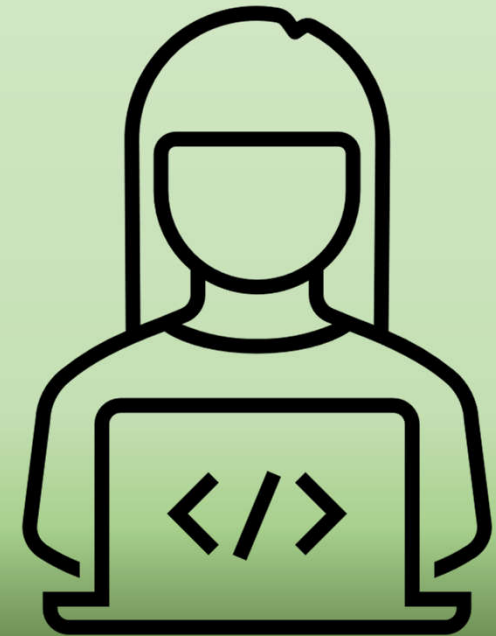313173825

About the course:

Course name: Advance Programming 2
Course number: 89211
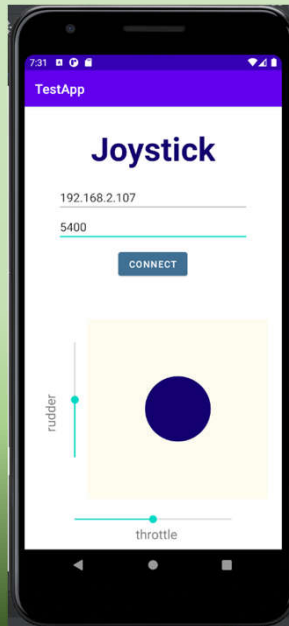Lecturer: Eli Halaschi
Faculty: computer science
University: Bar Ilan

About our project:

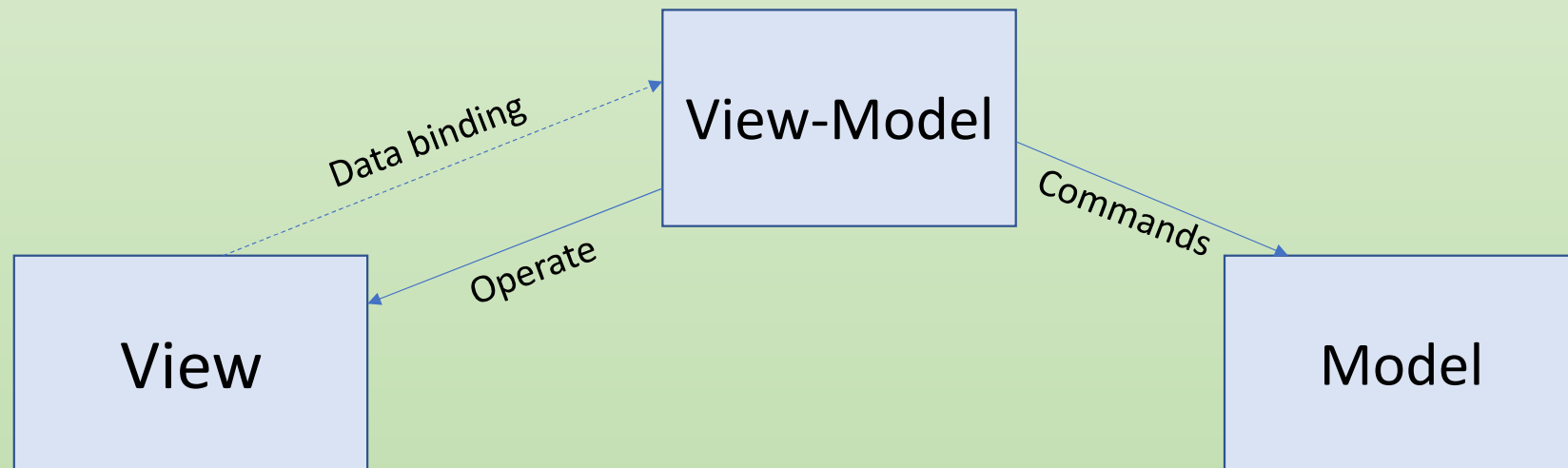We developed an Android App which allows you to control flight simulator that runs on remote device.

The application

The simulator

About the architecture we use – MVVM:

UML Diagram

View

AppCompactActivity

- virtual OnCreate()
- virtual OnStart()
- virtual OnResume()

MainActivity

- override OnCreate()
- override OnStart()
- override OnResume()

MainActivity simply opens JoystickActivity

JoystickActivity

- override OnCreate()

In charge of databinding and communication with VM

View

- virtual onMeasure
- virtual onDraw
- virtual onTouchEvent

AppCompactSeekBar

VerticalSeekBar

Overrides the methods above in order to be used as vertical seekbar

Joystick

Custom view component with circle used to control the plane

The view is what the user sees and uses to control the system. Activities are like programs.

Main adjustable views we used. There are more native ones.

View Model

BaseObservable

ViewModel

- Private model
- Properties:
  - Ip
  - Port
  - Throttle
  - Rudder
  - Elevator
  - Aileron
- runModel() – runs the private model using ip, port properties

Updates via private model

Controls the program. "properties" are updated by the view and passed to model.

Model

Model

- connectToServer(ip, port) – connect and run the app
- Setters (aileron, elevator, throttle, rudder)

ManageConnect

- ConnectAndRun()
- AddToQueue(string) – add instruction to be passed
- StopRun()

Its job is to connect the server and send data given by the view model, when any update is made