# Android Application Development

Agenda

- Pre-requisites
- Setting up environment
- Android Studio overview
- Hello World App
- Formatting text
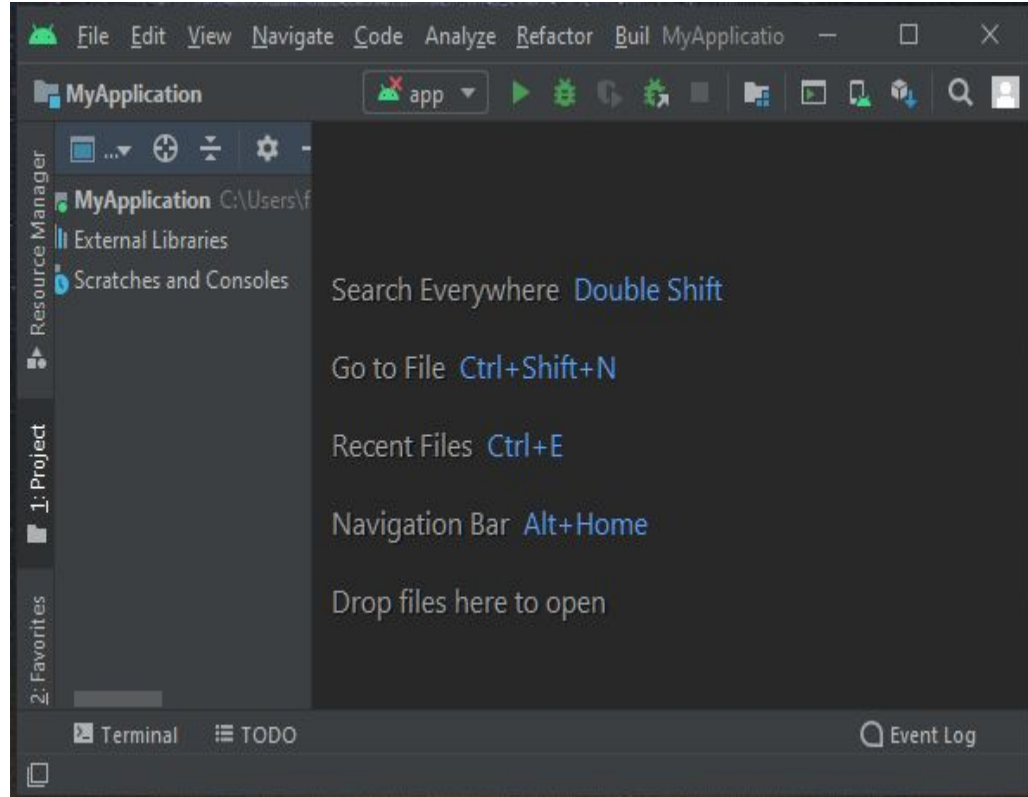- Text fields
- Buttons
- Demo1
- Demo2

Prerequisites

- Java
  - Java Basics
  - Java Object Oriented Concepts
  - Multithreading and Exception Handling
  - Generics and Collection Classes
  - Java Annotations

- XML
  - Basic of XML
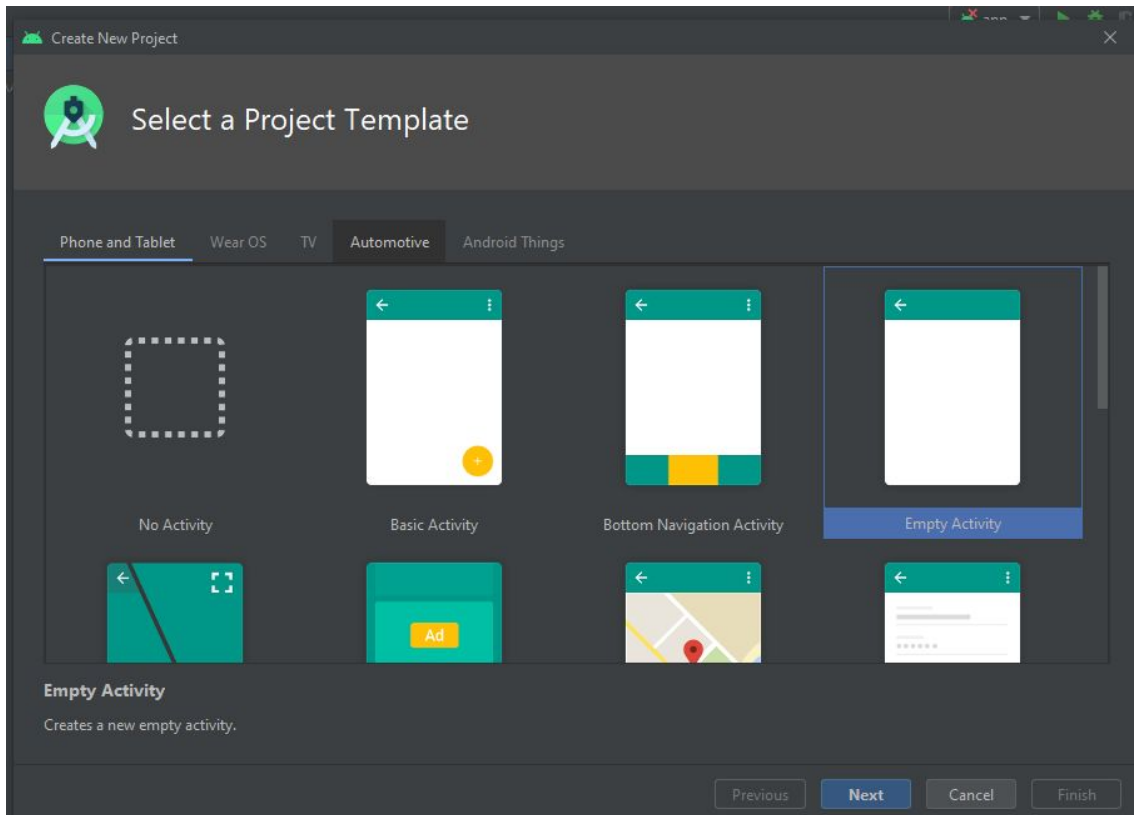   - Structure
    - Syntax
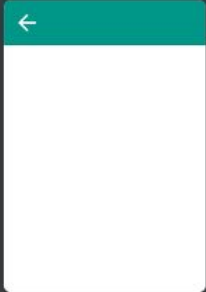   - Elements

Setting up Environment

Android Studio

Android SDK
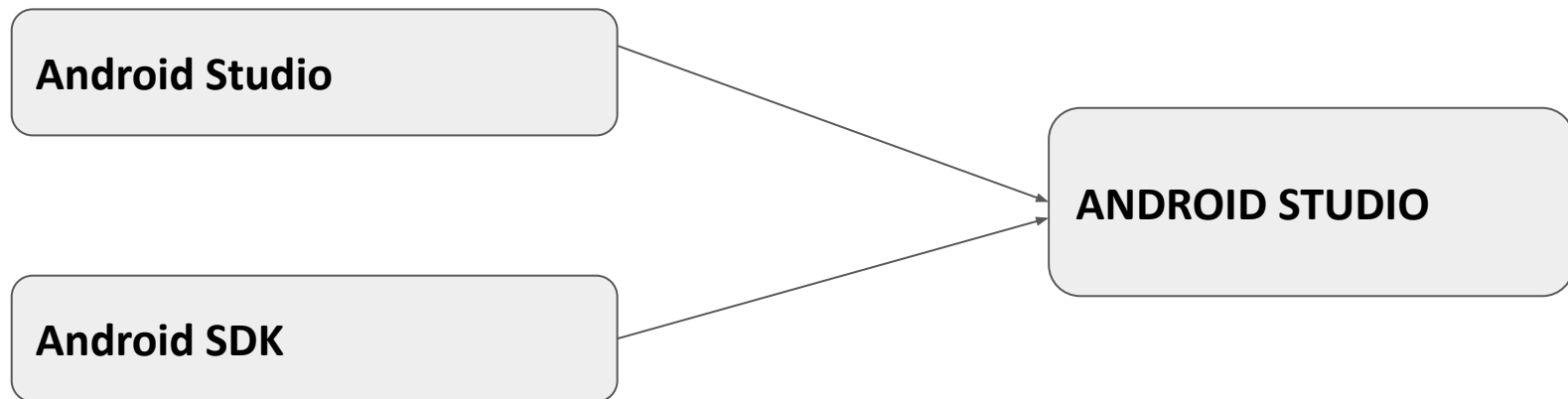
ANDROID STUDIO

Android Studio Overview

Android Studio Overview

Configuring Project

Walking through the IDE
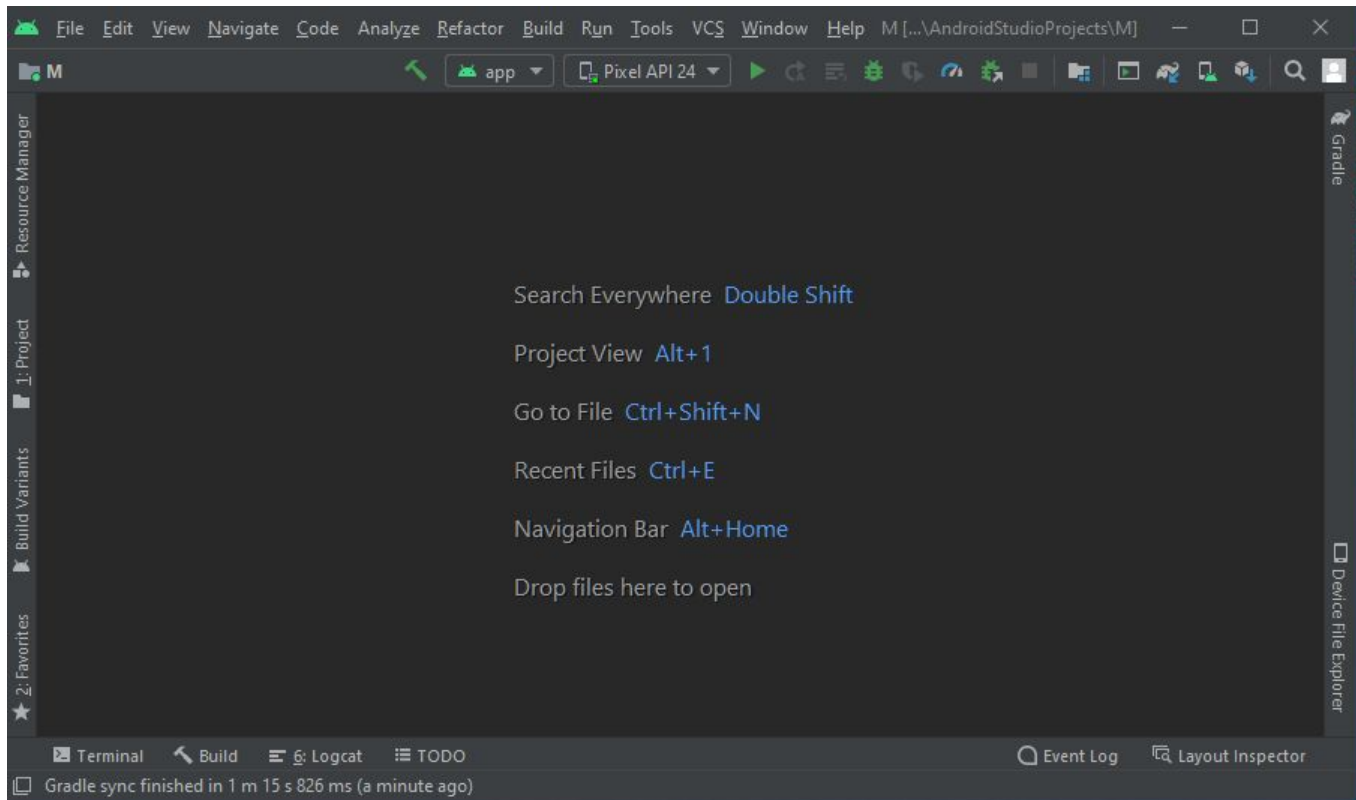
Creating a Virtual Device
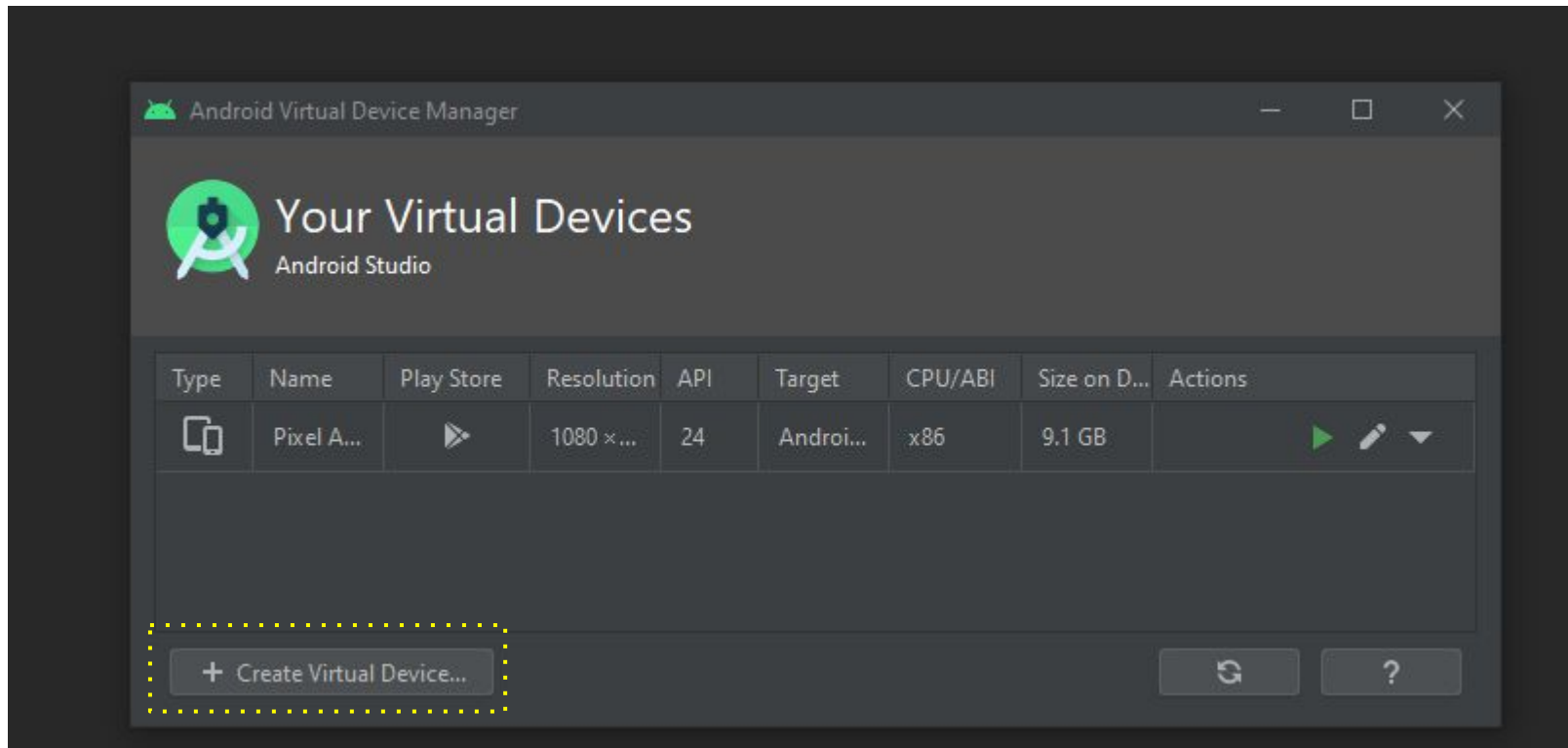
Step 1:

Step 2:
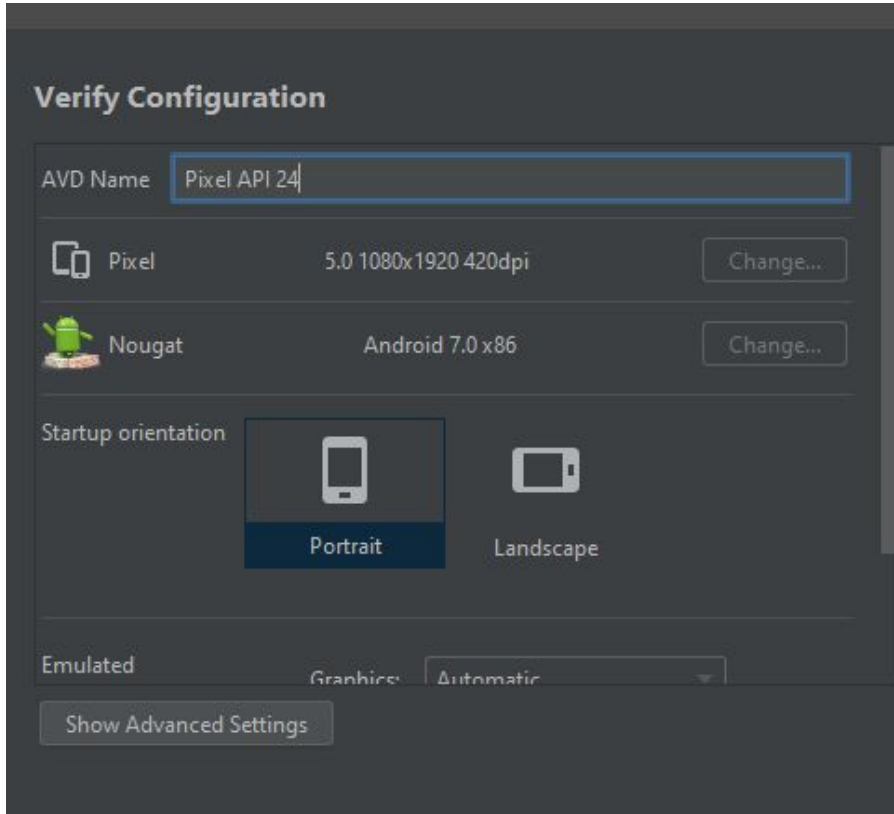
Hello World Application
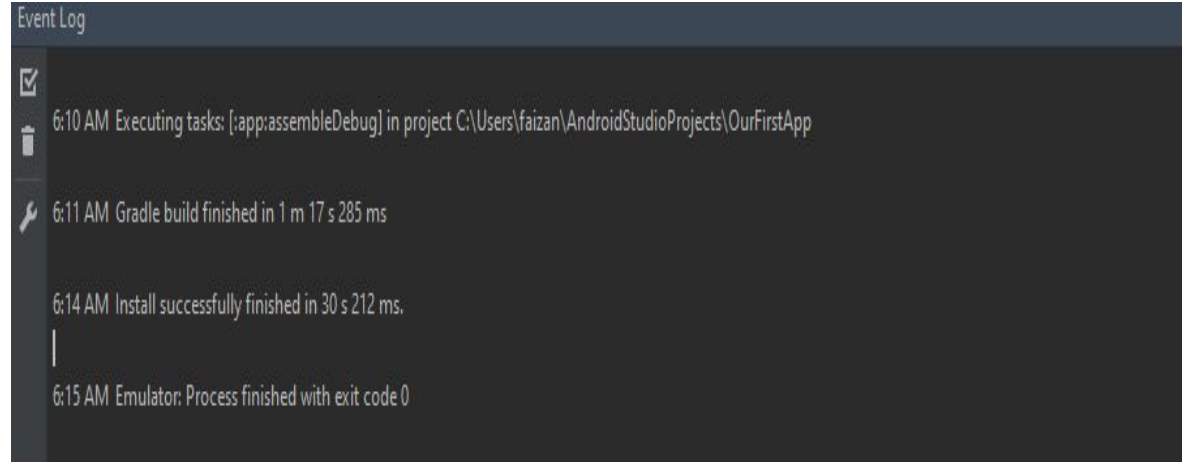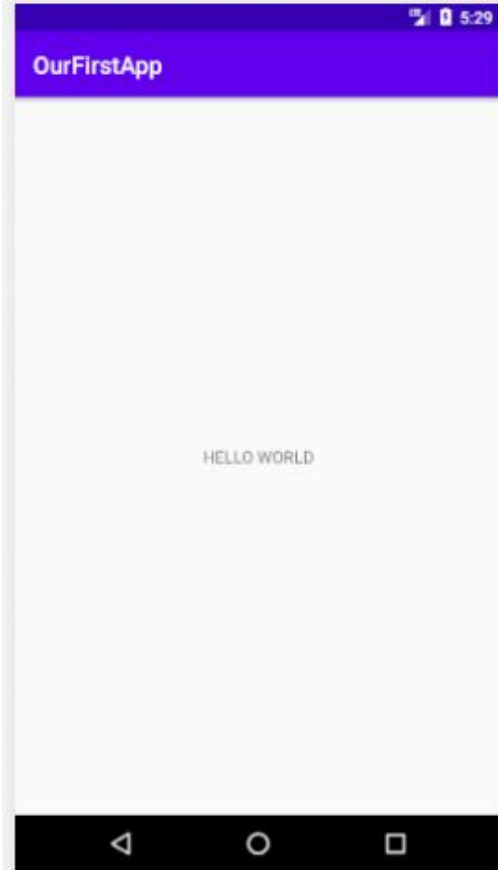
Formatting Text

Default view: TextView

Customise it by changing its properties

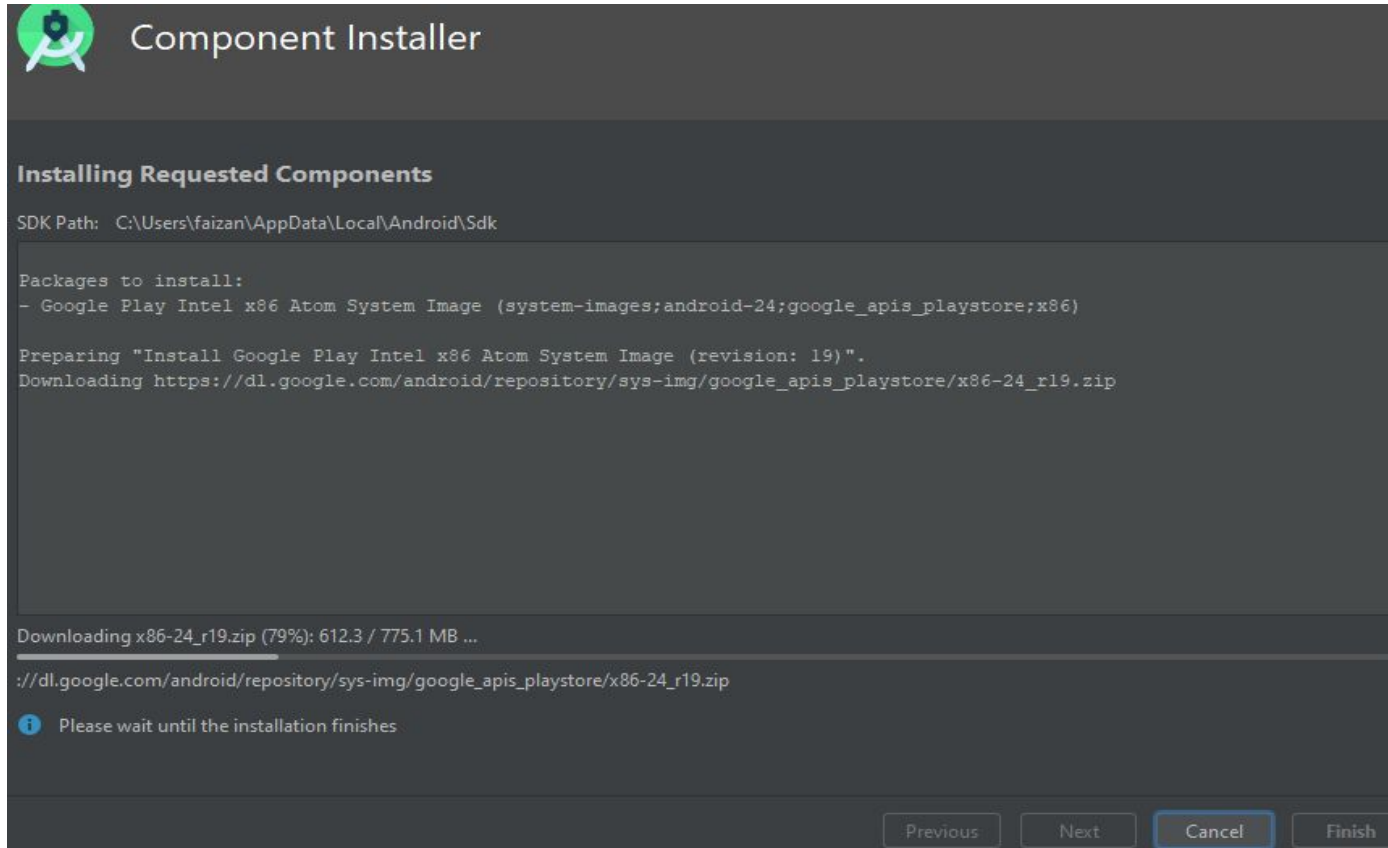# Text Fields

- Text present in our application
- Single or multiple line
- Dragging the edit text
- Customise
- Input type

Button

- Action to be performed when the user presses it
- Events
- Styles
  - Border
  - Background

Demonstration 1

Generate Random Number

Code

```java
Button btn = (Button) findViewById(R.id.button);
btn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        EditText fet = (EditText) findViewById(R.id.fetch);
        TextView  res = (TextView) findViewById(R.id.put);
        int range = Integer.parseInt(fet.getText().toString());
        Random random = new Random();
        int randomNumber = random.nextInt( bound: range-0) + 0;
        res.setText(randomNumber+" ");
    }
});
```
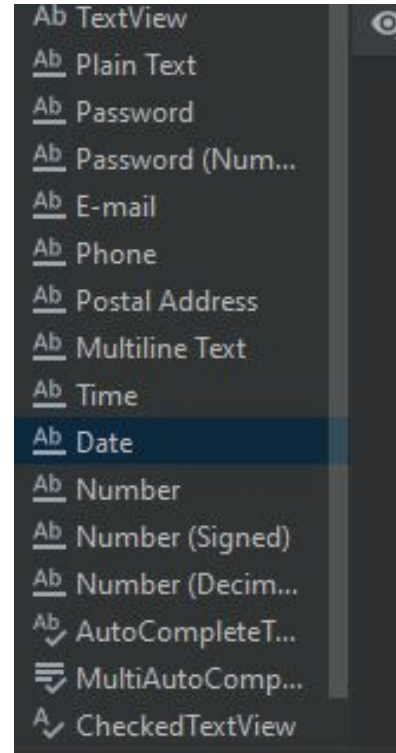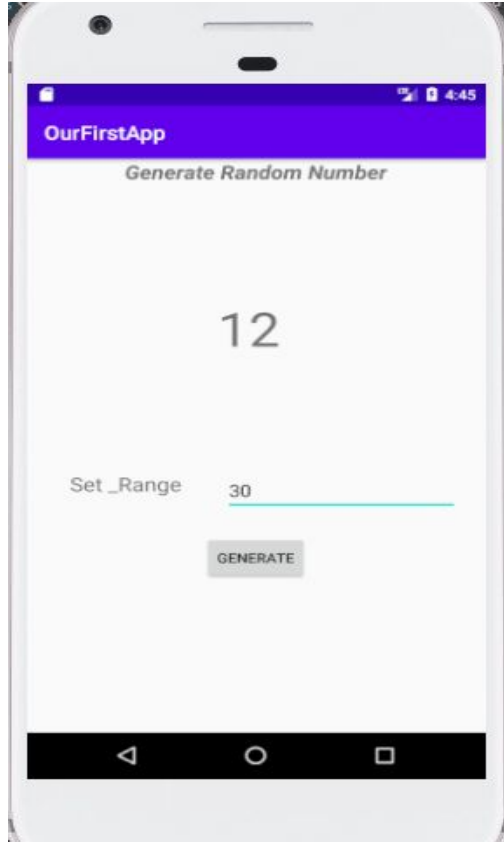
Demonstration 2

Adding Two Number

Code

```java
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);


    Button btn = (Button) findViewById(R.id.add);
    btn.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            EditText n1 = (EditText) findViewById(R.id.n1);
            EditText n2 = (EditText) findViewById(R.id.n2);

            TextView  res = (TextView) findViewById(R.id.res);
            int sum = Integer.parseInt(n1.getText().toString())+Integer.parseInt(n2.getText().toString());

            res.setText(sum + " ");
        }
    });
```

Thank You