University of Anbar
College of Computer Science and Information Technology
Computer Science Department

Mobile Application Programming

Lab Five
Third Stage

First Course 2023 - 2024

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Java in Android Studio

- Java is a versatile programming language widely used in Android development.
- Android Studio supports Java features such as object-oriented programming, platform independence, and more.
- Android Studio seamlessly integrates Java features such as object-oriented programming, multithreading, and a vast array of libraries, making it an ideal environment for building robust Android applications.

طريقة تعريف بعض العناصر بالجافا *

```
TextView = findViewById(R.id.textView);
Button = findViewById(R.id.button);
EditText = findViewById(R.id.editText);
imageView = findViewById(R.id.imageView);
```

** Button in java
```
Button variable  = (Button)findViewById(R.id.id name);
button.setOnClickListener( new Button.OnClickListener()
 { public void onClick(View v)
 { // Action to be performed when button is clicked
   } } );
```

** RadioButton
```
RadioButton r=findViewById(R.id.rd);
    r.setOnCheckedChangeListener(new
  CompoundButton.OnCheckedChangeListener() {
      @Override
      public void onCheckedChanged(CompoundButton compoundButton,
boolean b) {
         if(b)

Toast.makeText(getApplicationContext(),"Checked",Toast.LENGTH_LONG).show();

      else

Toast.makeText(getApplicationContext(),"unChecked",Toast.LENGTH_LONG).show();

   }
    });
```

** RadioButton

```java
RadioButton r=findViewById(R.id.rd);
    r.setOnCheckedChangeListener(new
CompoundButton.OnCheckedChangeListener() {
        @Override
        public void onCheckedChanged(CompoundButton compoundButton,
boolean b) {
            if(b)

Toast.makeText(getApplicationContext(),"Checked",Toast.LENGTH_LON
G).show();
        else

Toast.makeText(getApplicationContext(),"unChecked",Toast.LENGTH_L
ONG).show();
        }
    });
```

** CheckBox

```java
CheckBox ch=findViewById(R.id.ch1);
    ch.setOnCheckedChangeListener(new
CompoundButton.OnCheckedChangeListener() {
    @Override
    public void onCheckedChanged(CompoundButton compoundButton,
    boolean b) {
        if (b)

Toast.makeText(getApplicationContext(),"Checked",Toast.LENGTH_LON
G).show();
        else

Toast.makeText(getApplicationContext(),"unChecked",Toast.LENGTH_L
ONG).show();
    }
});
```

** RatingBar

```java
RatingBar ra=findViewById(R.id.r);
    ra.setOnRatingBarChangeListener(new
RatingBar.OnRatingBarChangeListener() {
        @Override
        public void onRatingChanged(RatingBar ratingBar, float v, boolean b)
```

```
    {
        }
    });
```

** ListView

```
 ListView li=findViewById(R.id.list1);
    li.setOnItemClickListener(new AdapterView.OnItemClickListener() {
        @Override
        public void onItemClick(AdapterView<?> adapterView, View view, int i, long l) {
        }
    });
```

Toast

android.widget.Toast

A toast is a view containing a quick little message for the user.

A toast provides simple feedback about an operation in a small popup. It only fills the amount of space required for the message and the current activity remains visible and interactive.

Steps

Instantiate a Toast object with one of the makeText() methods. This method takes three parameters: the application Context, the text message, and the duration for the toast. It returns a properly initialized Toast object.

```
Context context = getApplicationContext();
    CharSequence text = "Hello toast!";
    int duration = Toast.LENGTH_SHORT;

    Toast toast = Toast.makeText(context, text, duration);
    toast.show();

    // Toast.makeText(context, text, duration).show();
```

Constants		
int	LENGTH_LONG	Show the view or text notification for a long period of time.
int	LENGTH_SHORT	Show the view or text notification for a short period of time.