

Title - Design & develop GUI for fan regulator [43212]

Problem statement -

Design & develop a GUI for fan regulator that uses android platform

Theory -

- Graphical User Interface (GUI) is human computer interface that uses without icons & menus which can be manipulated by users.

- An icon is picture or symbol that can represent a file, directory or a device.

In order to develop a GUI for fan regulator we have to take image of fan & rotate it using Animation class.

Animation -

- It is a process to create motion & shape change.

- For creating an animation, I will be using animation class.

Functions of Animation class -

i] start (-) - This method starts animation

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ii) `setDuration(long duration)` - This sets duration of animation.

iii) `getDuration()` - This returns duration that has been set by `setDuration()`.

iv) `end()` - This ends the animation.

v) `cancel()` - This cancels animation.

To start animation, we call a function `startAnimation()` method of object.

Steps to create animation -

- 1] Create a new Android Studio Project.
- 2] Modify `MainActivity.java` & create code for animation.
- 3] Right click on `res`. Create resource directory of type `anim`.
- 4] create an `xml` file within it. I have created two `xml` files `rotate`, `clockwise` & `rotate - anticlockwise.xml`.
- 5] Since, I have to rotate fan I have written following code.

<set ...>

```
<rotate android:fromDegrees = "360"  
    android:toDegrees = "0",  
    android:pivotX = "50%",  
    android:pivotY = "50%",  
    android:duration = "500",  
    android:repeatCount = "infinite"/>
```

</set>

conclusion -

This assignment taught me how to create a simple animation in android.