

Working with AlertDialog

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1 AlertDialog

A Dialog is small window that prompts the user to a decision or enter additional information¹. To create an alert Dialog, Android system provides an Interface called as, *AlertDialogBuilder* which an inner class of *AlertDialog*. *AlertDialog.Builder* provides wide range of properties to tweak on how the Alert Message to be presented to the user. Some of the properties that can be customized are,

1. Title of the Alert using setTitle(String title) function
2. Icon of the Alert using setIcon(Drawable_resource) function
3. Cancellable or not feature that lets user to be able to cancel the dialog or not using setCancelable(boolean) function
4. Set a Message using setMessage(CharSequence message)
5. To set positive and negative button to address YES/NO type input using *setPositiveButton()* & *setNegativeButton()* respectively.
6. finish() closes the AlertDialog
7. AlertDialog.show() shows the Alert Window

To Create an alerdialog, One needs to instantiate AlertDialog.Builder class as follows,

```
AlertDialog.Builder builder = new AlertDialog.Builder(this);
```

Once the AlertDialog object is created, we can now set the attributes such as title, message, positive/negative button as follows,

```
builder.setIcon(R.drawable.ic_launcher_background) ; //Sets the icon from Drawable folder
builder.setTitle("AlertDemo") ; // Sets the Title Message
builder.setMessage("You want to Stay, Y/N?") ;
builder.setPositiveButton("Yes", new DialogInterface.OnClickListener() {
    @Override // Positive Button with Event Listener
    public void onClick(DialogInterface dialog, int which) {
        Toast.makeText(MainActivity.this, "You have pressed yes",
            Toast.LENGTH_SHORT).show();
    }
});
```

¹https://www.tutorialspoint.com/android/android_alert_dialogues.htm

2 Exercise-I

Create an Android App to demonstrate the Working of AlertDialog. The following are the steps,

- Open up activity_main.xml file, Change the Layout to LinearLayout and set the orientation to vertical. Add a Button that can generate an alert under the LinearLayout as shown below,

```
<Button
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:id="@+id/alert"
    android:layout_marginRight="30dp"
    android:layout_marginLeft="30dp"
    android:text="CLICKTOALERT"
/>
```

- Create the necessary JAVA objects in the MainActivity.java file and equate the JAVA object with XML object and add an onClick Event Listener as well.

```
Button alertButton ;
// inside onCreate()
alertButton = findViewById(R.id.alert) ;
alertButton.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        //logic for Alert
    }
});
```

- Inside the onClick() function, Create the AlertDialog.Builder object using the constructor and pass the context as an argument for it.

```
AlertDialog.Builder builder = new AlertDialog.Builder(MainActivity.this) ;
```

- Customize the AlertDialog and its properties as shown below,

```
builder.setIcon(R.drawable.ic_launcher_background) ;
builder.setTitle("Alert Title") ;
builder.setMessage("Shall I Close this window, Y/N?") ;
builder.setPositiveButton("Yes", new DialogInterface.OnClickListener() {
    @Override
    public void onClick(DialogInterface dialog, int which) {
        Toast.makeText(MainActivity.this, "You have pressed yes",
            Toast.LENGTH_SHORT).show();
    }
});
builder.setNegativeButton("No", new DialogInterface.OnClickListener() {
    @Override
    public void onClick(DialogInterface dialog, int which) {
        finish() ;
    }
});
```

- Finally, To Create an AlertDialog we use the AlertDialog.Builder class to customize the AlertDialog and then we use AlertDialog.builder.create() to create an AlertDialog object which can be equated accordingly. this is shown below,

```
AlertDialog alertDialog = builder.create();  
alertDialog.show();
```

3 Output

The alert window of the result is as shown below figure ??,

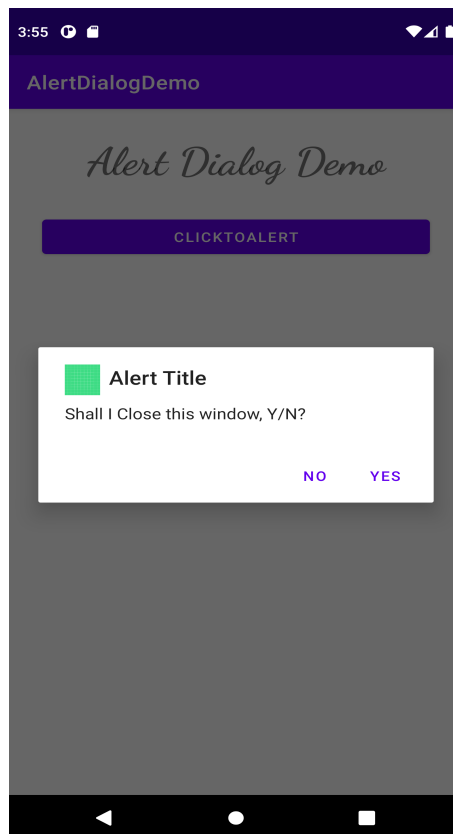


Figure 1: Alert Dialog