

Assignment 1: Calculator App

Develop a Calculator App in Android that should fulfill the following requirements.

1. A display at the top where the user can view the input and output of their calculations.
2. Buttons for **All Clear (AC)**.
3. Button for the **Square Root** ($\sqrt{}$) operation.
4. Buttons for the following arithmetic operations: **addition (+)**, **subtraction (-)**, **multiplication (\times)** and **division (\div)**.
5. Buttons for numbers **0 to 9**.
6. Button for the result (**=**).

Input / Output Display

The display is where the user will see the inputs and outputs of their calculations.

- Your calculator will display a '0' (zero) as its default value.
- Calculations that have more than two operands (e.g. **3 + 4 + 5**) will display the result of the first operation (i.e. for '**3 + 4**' the result '**7**' will be displayed) and continue to display the result for all subsequent operations until the user completes their calculation by pressing the "=" button. (**OPTIONAL**)
- **AC Button:** The All Clear button is used to reset the calculator. That is, any completed or active calculation will be set to the '0' (zero) default value.
- Display in the area should be right justified. The numbers that you enter will be displayed in the field.
- If user presses "4" first and "5" second and presses "+", the number to be used for calculation will be 45 and the operation to be carried out will be Addition.



Assignment 2: Widget Demo App

Develop an Android App that fulfils the following requirements.

1. Create an Option Menu and Context menu.
2. Option menu should be created using java code and Context menu using XML file.
3. Both the menu should be having the following options.
 - **Menu 1: Time Picker Widget.** Toast the new time set by the user. Use the Time Picker Dialog.
 - **Menu 2: Date Picker Widget.** Toast the new Date set by the user. Use the Date Picker Dialog.
 - **Menu 3: Play Song.** Once the user presses the Play button, play the song.
 - **Menu 4: Stop Song.** Once the user presses the Stop button, stop the song.
 - **Menu 5: Exit.** Display the exit dialog box. If user presses Yes, exit from the application. If the user presses No, then stay in the same application.
4. The same options should work in the Context Menu also. (Context Menu should be created using the XML file)