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| | **Pimpri Chinchwad Education Trust's**<br><br>**Pimpri Chinchwad College of Engineering** |

**Practical Assignment**

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| **Department: MCA**<br>**Semester:** I | **Academic Year:** 2024-2025<br>**Year and Div.: SYMCA** | **Maximum Marks:** |
| **Subject: Mobile Application Development Lab** | **Subject Teacher: Prof. Rajkamal Sangole**<br>**Name & sign** | |
| **Assignment No: 4** | **Date: 10/10/24** | **Date of Submission: 17/10/24** |

1. Create an Android application that issues a simple notification when a button is clicked. The notification should display a title, message, and small icon. Ensure that the notification appears in the status bar and can be dismissed by the user. Use the NotificationCompat.Builder class to build and issue the notification.
2. Design an app that triggers a basic notification with a clickable action. The notification should have a "View" button that, when clicked, opens a specific activity within the app. Use an Intent to handle the notification action, and display the action's result within the new activity.
3. Create an Android application that triggers a simple notification when a button is clicked. Use the NotificationCompat.Builder class to build the notification and set its properties, such as title, text, and icon. Ensure that the notification appears in the status bar and can be expanded to show additional content.
4. Build an application that generates a notification with custom properties such as sound, vibration, and LED light color. Use the NotificationCompat.Builder class to set these properties. The app should allow the user to configure these properties through a settings screen and preview the notification with the chosen settings.
5. Create a notification that includes action buttons. For example, build a media player notification with "Play", "Pause", and "Stop" buttons. Use the NotificationCompat.Builder class to attach these actions and handle the corresponding intents when the user interacts with the notification.
6. Develop an app that triggers a "Big Picture Style" notification. The notification should display a large image when expanded. Use NotificationCompat.BigPictureStyle to

implement the expanded notification and ensure it includes both a title and a summary text when collapsed.

7. Build an app that generates a heads-up notification (high-priority notification that pops up as an overlay). Set up the notification to appear when an urgent event occurs, such as receiving an important message or a time-sensitive alert. Customize the notification to include an action, such as "Dismiss" or "Snooze".
8. Develop an Android application that creates notification channels for different categories of notifications (e.g., "Messages", "Alerts", "Promotions"). Use the NotificationChannel class to define channel properties like importance, sound, and vibration. Ensure notifications are issued under the appropriate channel, and allow the user to customize channel settings.
9. Create an application that issues multiple notifications and groups them into a single expandable notification. Use NotificationCompat.Builder and NotificationCompat.InboxStyle to group notifications, such as showing a list of recent messages in a messaging app. Implement functionality to expand and collapse the group.
10. Design an application that schedules and triggers notifications at a specific time or interval (e.g., daily reminders). Use AlarmManager or WorkManager to schedule the notifications, and issue them using NotificationCompat.Builder. Ensure that notifications are triggered even when the app is in the background or closed.