

ANDROID APP DEVELOPMENT



ABOUT US

CODSOFT is a vibrant and diverse community that brings together individuals with similar objectives and ultimate goals. Our main focus is on creating opportunities that span various areas, including leadership development, learning, student engagement, and fostering shared interests.

We believe in the power of leadership and its ability to drive positive change. That's why we provide platforms and resources for our community members to develop their leadership skills. Through mentorship programs, workshops, and collaborative projects, we empower individuals to take on leadership roles and make a difference in their respective fields.



INSTRUCTIONS

- Update your LinkedIn profiles
- *For the Android Development internship, you will need to complete at least 2 tasks for successful completion of the internship.*
- Maintain a separate GitHub repository(name CODSOFT for all the tasks and share the link of the GitHub repo in the task submission form(it will be given later through email).
- You can refer to online resources such as Google Search and read tutorials. Watch videos(For Help).

SUBMISSION

A TASK SUBMISSION FORM will be shared later through email. Till then please continue your task.

- A video need to be created to showcase your work, demo of your effort
- *For the Android Development internship, you will need to complete at least 2 tasks for successful completion of the internship.*
- The video can be hosted on LinkedIn for proof of your work and build credibility among your peers . You can tag **CODSOFT** in such posts..
- Please add **#codsoft** in each of your task video postings on LinkedIn, Additionally, you can also add hashtags such as #internship #webdevelopment. for more reach and visibility.

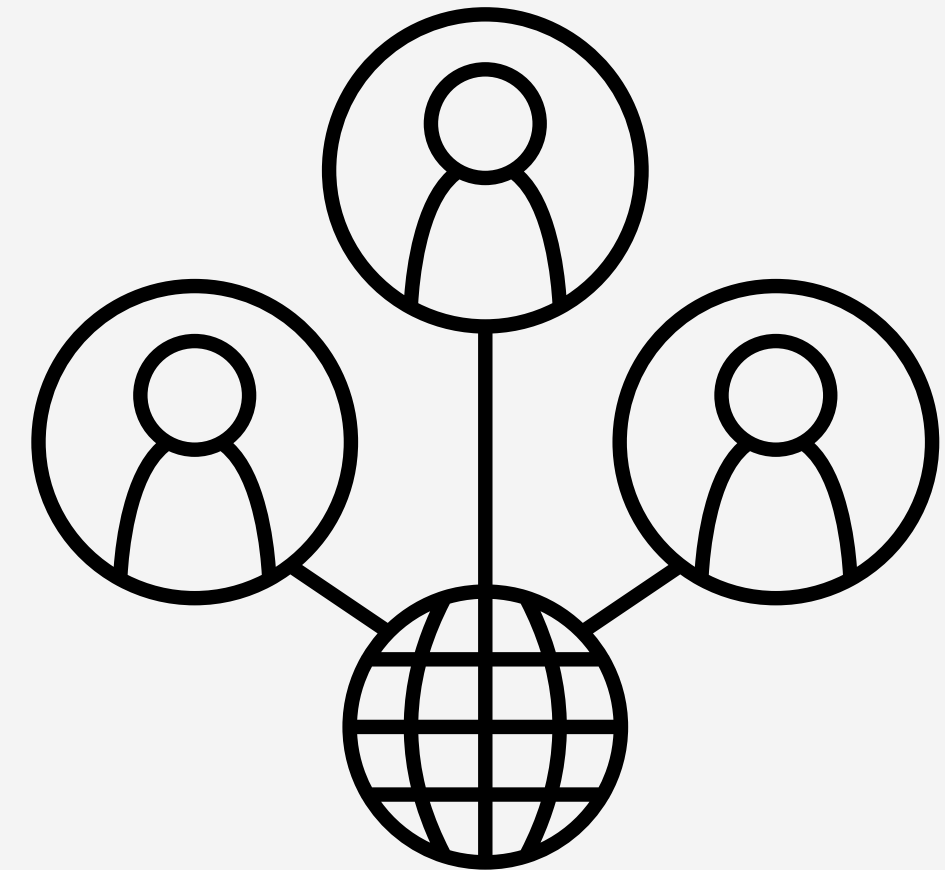
ABOUT THE INTERNSHIP



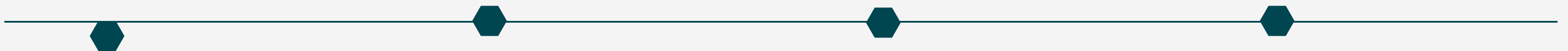
**COMPLETION
CERTIFICATE**



**PLACEMENT
SUPPORT**



**NETWORK
OPPORTUNITY**





ANDROID APP DEVELOPMENT TASK LIST

For the Android App Development internship, you will need to complete at least 2 tasks for successful COMPLETION OF THE INTERNSHIP.



TASK 1

FLASHLIGHT APP FOR DEMO [CLICK HERE](#)

Develop a flashlight app that turns on the device's flashlight when the app is launched and turns it off when the app is closed.

1. UI Design: Create a single screen layout with a toggle button to control the flashlight.

2. Flashlight Functionality: Check for the availability of a camera flash on the device.

Implement code to turn on and off the flashlight based on the user's input.

3. App Lifecycle: Handle the app's lifecycle events to ensure the flashlight is turned off when the app is closed or paused.

4. Error Handling: Implement error handling to handle scenarios where the device doesn't have a camera flash or if the flashlight fails to turn on.

For App - Upload video demo of your application on youtube and submit the url.



TASK 2

CALCULATOR APP FOR DEMO [CLICK HERE](#)

Develop a calculator app that performs basic arithmetic operations like addition, subtraction, multiplication, and division.

- 1. UI Design:** Create a layout with number buttons (0-9) and operator buttons (+, -, *, /).
Design a display area to show entered numbers and results.
- 2. Number Input:** Capture user input when number buttons are pressed.
Store entered numbers for further processing.
- 3. Operator Selection:** Enable selection of arithmetic operators through button clicks.
Implement logic to identify the selected operator.
- 4. Calculation:** Perform arithmetic calculations based on the selected operator.
Handle division by zero and invalid operations.
- 5. Display:** Update the display area to show entered numbers and results.
Handle decimal numbers and rounding.
- 6. Clear and Reset:** Add a clear button to reset the calculator, clearing entered numbers.
- 7. Error Handling:** Display appropriate messages for invalid input or calculations.
Handle overflow or exceeding number limits.

For App - Upload video demo of your application on youtube and submit the url.





TASK 3

CURRENCY CONVERTER APP

FOR DEMO [CLICK HERE](#)

Develop a currency converter app that converts between different currencies using real-time exchange rates.

1. UI Design: Create a user-friendly interface with input fields for the amount, source currency, and target currency.

Display a result area to show the converted amount.

2. Currency Data: Fetch the latest exchange rates from a currency conversion API.

Store the currency data for offline use or implement real-time updates.

3. Input Handling: Capture and validate user input for the amount, source currency, and target currency.

4. Currency Conversion: Apply the appropriate exchange rate to calculate the converted amount.

5. Display: Update the result area to show the converted amount with proper formatting.

6. Error Handling: Handle API request failures and lack of internet connection.

Display error messages for invalid input or conversion errors.

7. Refresh and Update: Add a refresh button to fetch updated exchange rates.

Allow users to manually update the currency data

For App - Upload video demo of your application on youtube and submit the url.

TASK 4

WINDOW NOTIFICATION USING JAVA CODE FOR DEMO [CLICK HERE](#)

1. Import necessary libraries for GUI development.
 2. Design a notification window with title, message, and optional image/icon.
 3. Create and display the notification window.
 4. Set the notification title, message, and image/icon.
 5. Allow user interaction with the notification.
 6. Customize the notification's appearance, such as font and color.
 7. Handle errors or exceptions during notification display.
 8. Test the application on different operating systems for compatibility.
- For App - Upload video demo of your application on youtube and submit the url.**



TASK 5

UNIVERSITY ATTENDANCE APP FOR DEMO [CLICK HERE](#)

Develop a university attendance app for students and instructors to track attendance records efficiently.

1. User Authentication: Implement user authentication for students and instructors.

Enable registration and login functionality.

2. Student Features: Display courses and allow students to mark attendance.

3. Instructor Features: Manage course information and student roster.

4. UI Design: Create a user-friendly interface for easy navigation.

Design screens with menus, buttons, and input fields.

5. Database Management: Store student information, course details, and attendance records.

Utilize a database management system like SQLite or Firebase Realtime Database.

6. Data Security: Implement security measures to protect user data and ensure privacy.


7. Error Handling: Handle errors, such as invalid inputs or network failures.

Display helpful error messages for troubleshooting.

For App - Upload video demo of your application on youtube and submit the url.



ASK US FOR HELP!

- **THE PURPOSE OF THIS INTERNSHIP IS TO LEARN AND GROW**
 - **We have no desire to dictate to you. It is entirely up to you whether you seek guidance or not.**
 - **The given tasks may seem very easy or very difficult. We expect you to approach the tasks with professional diligence and give them the attention they deserve."**
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