



DOP: / /2023

DOS: / /2023

**Experiment No:**

**Title:** Android Dynamic Code Analysis

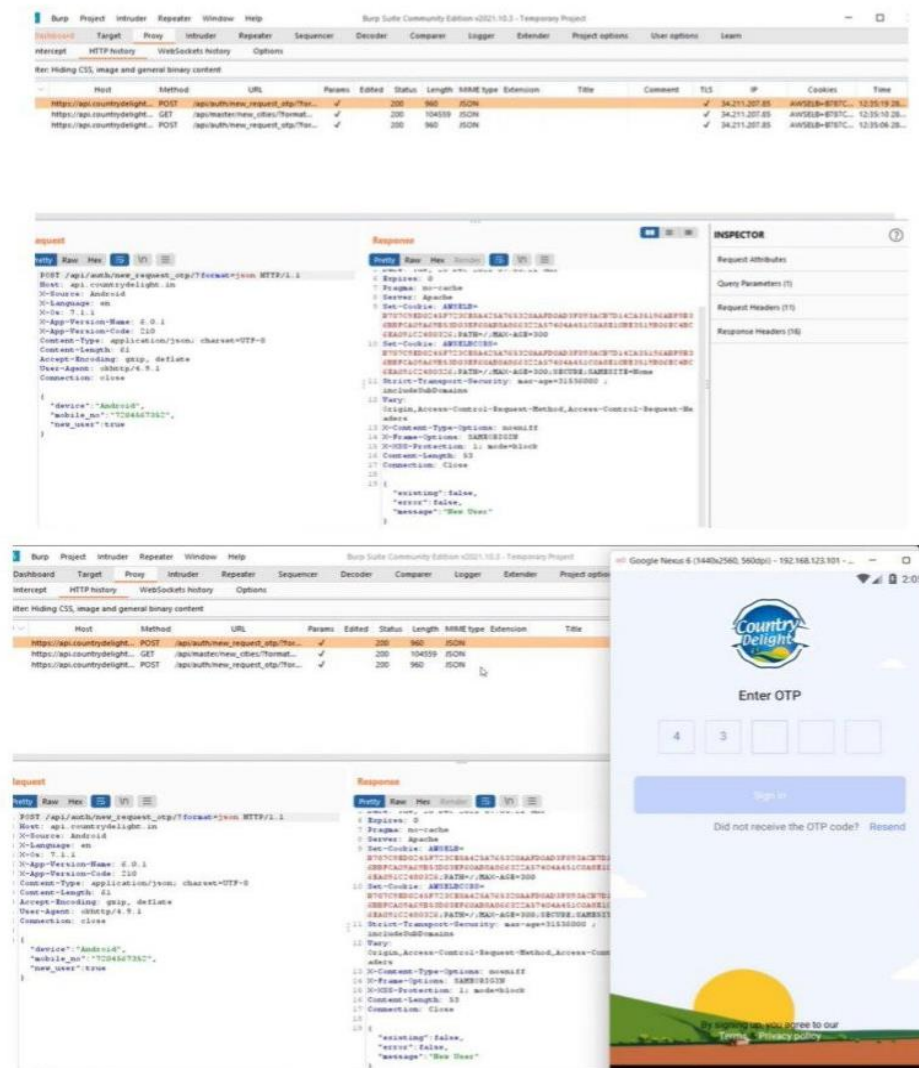
**Theory:-** Android dynamic code analysis refers to the process of analyzing an Android application while it is running in order to gain insights into its behavior and detect any security vulnerabilities or other issues. This type of analysis is often used by developers, security researchers, and other professionals who are interested in understanding how an application functions under different conditions, as well as identifying any potential weaknesses that could be exploited by attackers.

There are several different tools and techniques that can be used for Android dynamic code analysis, including:

1. Debugging: This involves using a debugger to examine the application's code as it is running, in order to identify any bugs or other issues.
2. Profiling: This involves using a profiling tool to analyze the application's performance and resource usage, in order to identify any areas where improvements could be made.
3. Network traffic analysis: This involves monitoring the network traffic generated by the application, in order to identify any sensitive information that is being transmitted or any potential security vulnerabilities.
4. Malware analysis: This involves analyzing the application for any signs of malware or other malicious behavior, such as the use of root privileges or the ability to access sensitive data.
5. Dynamic analysis frameworks: These are tools specifically designed for dynamic analysis of Android applications, such as Frida, which allows for real-time manipulation and monitoring of an application's behavior.

- Android dynamic code analysis is an important tool for developers and security researchers, as it allows them to gain a deeper understanding of how an application works and identify any potential issues that could impact its security and functionality.

## CODE ANALYSIS WITH OUTPUT.

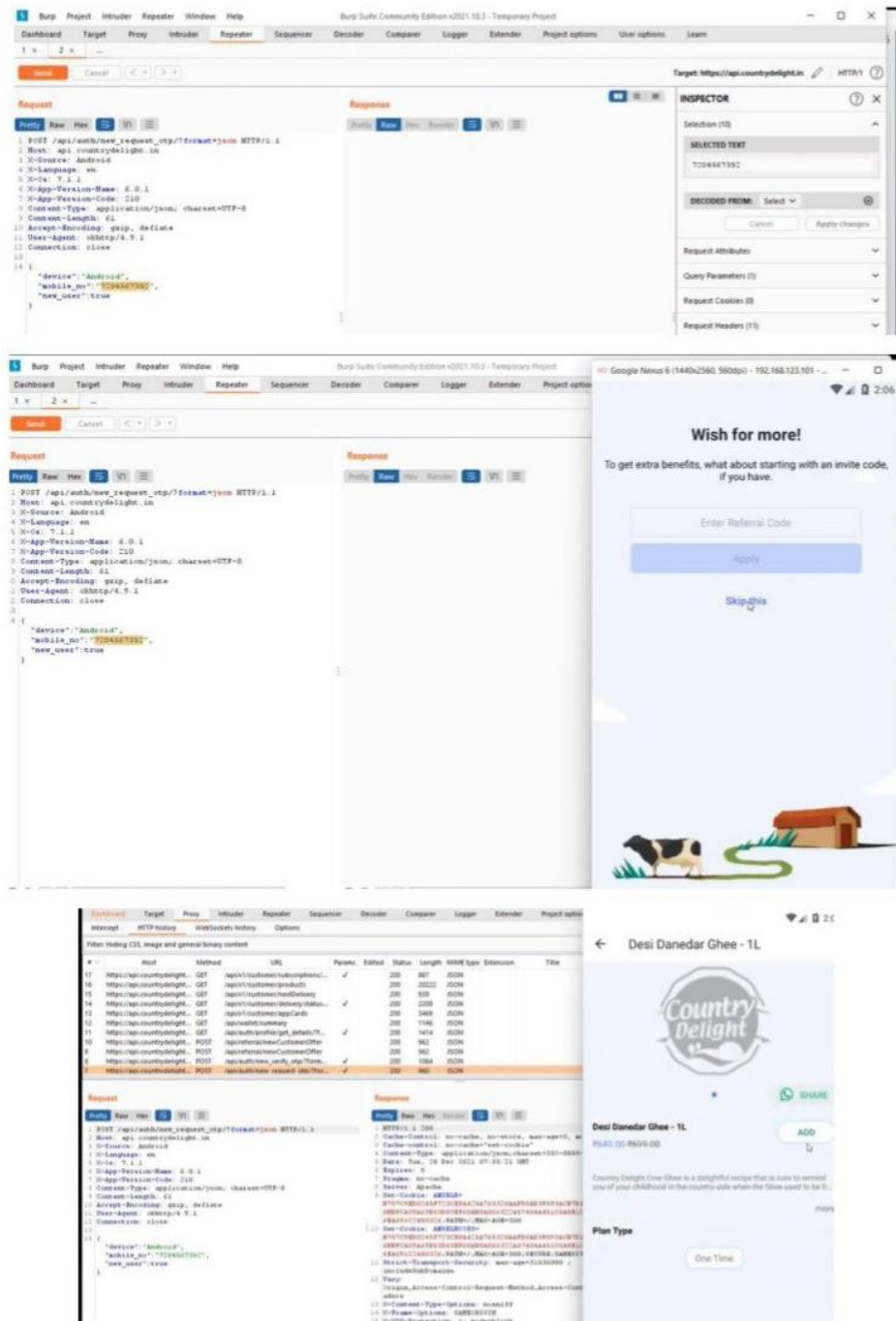


The screenshot displays the Burp Suite Community Edition interface. The top menu bar includes options like Project, Intruder, Repeater, Window, and Help. The main window is divided into several panes:

- HTTP History:** A table listing intercepted HTTP requests. The first three entries are POST requests to `https://api.countrydelight.in/api/auth/new_request_atp/...` with status 200 and content type JSON.
- Request Inspector:** Shows the details of the selected POST request. It includes headers like `Host: api.countrydelight.in`, `Content-Type: application/json`, and `Accept-Encoding: gzip, deflate`. The body is a JSON object containing `device`, `mobile_no`, and `user_name`.
- Response Inspector:** Shows the details of the selected POST response. It includes headers like `Server: Apache`, `Set-Cookie: AMR12C18A=...`, and `Content-Type: application/json`. The body is a JSON object containing `expire`, `token`, and `message`.

On the right side, there is a **Inspector** pane showing request attributes, query parameters, request headers, and response headers.

At the bottom right, there is a small inset image of a mobile application interface. It shows a login screen with the text "Country Delight" and "Enter OTP". There are input fields for OTP and a "Sign in" button. Below the button, it says "Did not receive the OTP code? Resend".



The top screenshot shows the Burp Suite interface with the 'Repeater' tab selected. The 'Request' pane displays an HTTP POST request to 'https://api.countrydelight.in'. The 'Inspector' pane on the right shows the 'SELECTED TEXT' as 'T0946793C'.

The middle screenshot shows the Burp Suite interface with the 'Repeater' tab selected. The 'Request' pane displays an HTTP POST request to 'https://api.countrydelight.in'. The 'Inspector' pane on the right shows the 'SELECTED TEXT' as 'T0946793C'.

The bottom screenshot shows the Burp Suite interface with the 'HTTP history' tab selected. The 'HTTP history' pane displays a list of HTTP requests. The 'Request' pane on the right shows the details of the selected request, including the 'Request' and 'Response' panes.

The right side of the bottom screenshot shows a mobile app interface for 'Country Delight'. The app displays a 'Wish for more!' screen with a 'Enter Referral Code' field and an 'Apply' button. Below this, there is a 'Skip this' button and a 'Desi Danedar Ghee - 1L' product listing with a 'Country Delight' logo and a 'Desi Danedar Ghee - 1L' title.

**Conclusion:-** Thus we have successfully studied Android dynamic code Analysis.