

DAY 28:

ASSIGNMENT 3:

Task 3: Proxy

Create a proxy class for accessing a sensitive object that contains a secret key. The proxy should only allow access to the secret key if a correct password is provided.

ANSWER:

```
public class SecretKeyProxy {  
    private final String secretKey;  
    private final String password;  
  
    public SecretKeyProxy(String secretKey, String password) {  
        this.secretKey = secretKey;  
        this.password = password;  
    }  
  
    public String getSecretKey(String inputPassword) {  
        if (inputPassword.equals(password)) {  
            return secretKey;  
        } else {  
            throw new SecurityException("Incorrect password");  
        }  
    }  
}  
  
public static void main(String[] args) {  
    // Example usage  
    String secretKey = "mySecretKey";  
    String password = "myPassword";  
    SecretKeyProxy proxy = new SecretKeyProxy(secretKey, password);
```

```
// Attempt to access the secret key
try {
    String inputPassword = "myPassword";
    String retrievedKey = proxy.getSecretKey(inputPassword);
    System.out.println("Secret key: " + retrievedKey);
} catch (SecurityException e) {
    System.out.println("Error: " + e.getMessage());
}

// Attempt to access the secret key with incorrect password
try {
    String inputPassword = "wrongPassword";
    String retrievedKey = proxy.getSecretKey(inputPassword);
    System.out.println("Secret key: " + retrievedKey);
} catch (SecurityException e) {
    System.out.println("Error: " + e.getMessage());
}
}
```