

REPORT WRITING

Insights Gained

- Understanding Bytecode

Java programs are compiled into bytecode, which is executed by the Java Virtual Machine (JVM).

- Legal and Ethical Considerations

It's important to note that reverse engineering should be done within legal and ethical boundaries

- Challenges

Obfuscation techniques can be used to make reverse engineering more difficult. These techniques modify the bytecode to make it harder to interpret

Tools and Techniques

Decompilers: These tools convert Java bytecode back into readable Java source code

Disassemblers: Tools like **Ghidra** can be used to analyze and reverse engineer Java applications

Code Snippets

```
public class HelloWorld {  
    public static void main(String[] args) {  
        System.out.println("Hello, World!");  
    }  
}
```

```
}  
}
```

Decompiled Java Class

After compiling the above code to a `.class` file, we can use CFR to decompile it back to readable Java code.

```
public class HelloWorld {  
    public static void main(String[] args) {  
        System.out.println("Hello, World!");  
    }  
}
```