BowShock

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Can you find out how to minimize bow shock and prevent everything from turning into dust?

- Points :- [50 points]
- The challenge is of reversing type and we are provided with a Bowshock.jar file
- So the challenge is of reversing the java file we can reverse the jar file using the java decompiler "JD-GUI"(Link to GitHub:- https://github.com/java-decompiler/jd-gui) which will be able to extract the code from the jar file.
- So I installed it in kali linux and opened the jar file and was provided with the following code in it.

```
import java.util.InputMismatchException;
import java.util.Scanner;

class BowShock {
  public static int totalInput;

  public static int getInput() {
    int i;
    System.out.println("Set the amount of plasma to the correct amount to minimize bow shock: ");
    Scanner scanner = new Scanner(System.in);
    while (true) {
      try {
        i = scanner.nextInt();
        break;
      } catch (InputMismatchException inputMismatchException) {
        System.out.print("Invalid input. Please reenter: ");
        scanner.nextLine();
      }
    }
    totalInput += i;
    return i;
  }

  public static void bowShock() {
    System.out.println("And all was dust in the wind.");
    System.exit(-99);
```

```
  }

  public static void main(String[] paramArrayOfString) {
    System.out.println("Oh damn, so much magnetosphere around here!");
    if (getInput() != 333)
      bowShock();
    System.out.println("We survive another day!");
    if (getInput() != 942)
      bowShock();
    if (getInput() != 142)
      bowShock();
    System.out.println("Victory!");
    System.out.println("CTF{bowsh0ckd_" + totalInput + "}");
  }
}
```

- After the inspection of the code I found out that the code will take some input which it uses for validation if the input no is equal then it will run further else the execution is stopped at that phase. For validation it calls getinput() Function which will add input to a total variable and store it, this function is called only to check if appropriate values are given or not. The end of the program had the flag format with total input so I added all the three values got the total to be 1471 added that to the flag and got the valid flag.
- Flag :- CTF{bowsh0ckd_1417}