

# CSA0959-PROGRAMMING IN JAVA FOR SCIENTIFIC APPLICATIONS

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```
import java.util.Scanner;

public class SecretMessageDecoder {

    public static void main (String [] args) {

        Scanner scanner = new Scanner (System.in);

        String secretCode = "DWELHOR";

        String decodedMessage = "";

        System.out.println("Enter 10 numbers to decode the secret message:");

        for (int i = 0; i < 10; i++) {

            int number = scanner.nextInt();

            char letter = decodeLetter(number);

            if (letter == '*') {

                System.out.println ("Invalid number. Please enter a valid number.");

                i--;

            } else {

                decoded Message += letter;

            }

        }

        System.out.println("Decoded Message: " + decoded Message);

    }

}
```

```
}
```

```
public static char decode Letter(int number) {
```

```
    switch (number) {
```

```
        case 1:
```

```
            return 'D';
```

```
        case 2:
```

```
            return 'W';
```

```
        case 3:
```

```
            return 'E';
```

```
        case 4:
```

```
            return 'L';
```

```
        case 5:
```

```
            return 'H';
```

```
        case 6:
```

```
            return 'O';
```

```
        case 7:
```

```
            return 'R';
```

```
        default:
```

```
            return '*'; // Invalid number
```

```
    }
```

```
}
```

```
}
```