

2.

```
String response = scanner.nextLine();
playAgain = response.equalsIgnoreCase("Yes");
2) scanner.close();
3)
```

input: Random number: 7
Player input: 5, 8, 7
Output: "TO low", "TO high", correct

Scenarios 03: Multiplication Table generator

Program:

```
import java.util.Scanner;
public static void main(String[] args) {
    int[] numbers = {2, 3, 4, 5, 6, 7};
    public class MultiplicationTableGenerator {
        public static void main(String[] args) {
            Scanner scanner = new Scanner(System.in);
            System.out.print("Enter the range:");
            int range = scanner.nextInt();
            System.out.println("Multiplication
                Table" + range + " from 1 to "
                + range + ":");
```

```
continueInput = scanner.next();
3 while
(continueInput.equalsIgnoreCase("Yes")),
scanner.close();
2
3
```

Input: 85

Output: Grade B.

Scenario 2: Number guessing game.

Program:-

```
import java.util.Random;
import java.util.Scanner;
public class Numberguessinggame {
    public static void main (String [] args)
    Random Rand = new Random ();
    boolean playAgain = true;
    while (playAgain) {
        int numberToGuess = rand.nextInt
            (10)+1;
        int attempts = 0;
        2 else {
            3 System.out.println ("too high");
        }
    }
}
```

```
for(int i=1; i<=range; i++)  
    System.out.println(number +  
    +(number*i));  
2.  
2.
```

INPUT :- 5

OUTPUT :- 5x1=5

$$5 \times 2 = 10$$

$$5 \times 3 = 15$$

$$5 \times 4 = 20$$

$$5 \times 5 = 25$$

$$5 \times 6 = 30$$

$$5 \times 7 = 35$$

$$5 \times 8 = 40$$

$$5 \times 9 = 45$$

$$5 \times 10 = 50$$

scenario 4: even (or) odd number counter

Program :-

```
public class EvenOdd  
public static void main (String []
```

```
int[] numbers = {2, 3, 4, 5, 6};  
int evenCount = 0;  
int oddCount = 0;  
int evenSum = 0;  
int oddSum = 0;  
  
for (int num : numbers) {  
    if (num % 2 == 0) {  
        evenCount++;  
        evenSum += num;  
    } else {  
        oddCount++;  
        oddSum += num;  
    }  
}  
  
System.out.println("even count: " +  
    evenCount);  
System.out.println("sum of even numbers: " +  
    evenSum);  
System.out.println("sum of odd numbers: " +  
    oddSum);  
  
input: {2, 3, 4, 5, 6}  
Output: even count: 3  
===== Odd count: 2.
```

Scenarios 5: Simple ATM simulation:-
Program:-

```
import java.util.Scanner;
public class ATM {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        double balance = 1000;
        int choice;
        do {
            System.out.println("ATM Menu!");
            System.out.println("1. Check Balance");
            System.out.println("2. Deposit Money");
            System.out.println("3. Withdraw");
            System.out.print("4. Exit");
            choice = scanner.nextInt();
            switch (choice) {
                case 1:
```

```
                System.out.println("Your balance  
is: $" + balance);
                break;
```

lines
balance = with draw Amount;
System.out.println ("With drawal
successful. Your new balance is:
\$" + balance);

default:

System.out.println ("invalid choice
please try again.");
}
while (choice != 4);
}

Input: initial balance \$1000

Operation: deposit \$200, withdraw
\$150, check balance.

Output:-

Balance \$1050

Scenario 01: Student grading system.
To calculate student grade based on their score. The grading criteria are follows:-

(Program):-

```
import java.util.Scanner;  
(public static void main)  
public class StudentGradingSystem {  
    public static void main(String[] args) {  
        Scanner scanner = new Scanner(System  
String continueInput;  
        do {  
            System.out.print("Enter the score:");  
            int score = scanner.nextInt();  
            char grade;  
            if (score >= 90) {  
                grade = 'A';  
            } else if (score >= 80) {  
                grade = 'B';  
            } else {  
                grade = 'F';  
            }  
        } while (continueInput.equalsIgnoreCase("Y"));  
    }  
}
```

```
    continueInput = scanner.next();
3 while
(continueInput.equalsIgnoreCase("Yes"))
scanner.close();
3
```

Input: 85

Output: Oracle B.

Q. Scenario Q: Number queuing game.

Program:-

```
import java.util.Random;
import java.util.Scanner;
public class Numberqueuinggame {
    public static void main (String [] args)
    Random rand = new Random ();
    boolean playAgain = true;
    while (playAgain) {
        int numberToGuess = rand.nextInt
        (10) + 1;
        int attempts = 0;
        System.out.println ("How h
        3
```

```
String response = scanner.next();
playAgain = response.equalsIgnoreCase("Yes");
scanner.close();
```

input: Random number: 7
Player input: 5, 8, 7

Output: "TO low", "TO high", correct

Scenarios: 03: Multiplication Table generator

Program:

```
import java.util.Scanner;
public static void main(String[] args) {
    int[] numbers = {2, 3, 4, 5, 6, 7}
```

```
public class MultiplicationTableGen
public static void main(String[] args) {
    Scanner scanner = new Scanner(System
```

```
System.out.print("Enter the range: ");
int range = scanner.nextInt();
```

```
System.out.println("Multiplication Table" + number + " for range " + ":" + range);
```

```
for(int i=1; i<=10; i++)  
    System.out.println(number  
+ (number * i));
```

```
scanner.close();
```

3.

3.

INPUT :- 5

OUTPUT :- $5 \times 1 = 5$

$5 \times 2 = 10$

$5 \times 3 = 15$

$5 \times 4 = 20$

$5 \times 5 = 25$

$5 \times 6 = 30$

$5 \times 7 = 35$

$5 \times 8 = 40$

$5 \times 9 = 45$

$5 \times 10 = 50$

enquiry: even (or) odd number
integer

```
int[] numbers = {2, 3, 4, 5, 6};
```

```
int evenCount = 0;
```

```
int oddCount = 0;
```

```
int evenSum = 0;
```

```
int oddSum = 0;
```

```
for (int num : numbers) {
```

```
    if (num % 2 == 0) {
```

```
        evenCount++;
```

```
        evenSum += num;
```

```
} else {
```

```
    oddCount++;
```

```
    oddSum += num;
```

2

3

```
System.out.println("even count: " + evenCount);
```

```
System.out.println("sum of even sum: " + evenSum);
```

5. Scenario 5: simple ATM simulation.

Program:-

```
import java.util.Scanner;  
public class ATM {  
    public static void main(String args[]){  
        Scanner scanner = new Scanner(System.in);  
        double balance = 1000;  
        int choice;  
        do{  
            System.out.println("ATM Menu");  
            System.out.println("1. Check Balance");  
            System.out.println("2. Deposit Money");  
            System.out.println("3. Withdrawal");  
            System.out.println("4. Exit");  
            choice = scanner.nextInt();  
            switch(choice){  
                case 1:  
                    System.out.println("Your balance is: $" + balance);  
                case 2:  
                    System.out.println("Enter amount to deposit: ");  
                    int depositAmount = scanner.nextInt();  
                    balance += depositAmount;  
                    System.out.println("Your current balance is: $" + balance);  
                case 3:  
                    System.out.println("Enter amount to withdraw: ");  
                    int withdrawAmount = scanner.nextInt();  
                    if(balance > withdrawAmount){  
                        balance -= withdrawAmount;  
                        System.out.println("Your current balance is: $" + balance);  
                    } else {  
                        System.out.println("Insufficient funds!");  
                    }  
                case 4:  
                    System.out.println("Thank you for using our ATM service!");  
            }  
        } while(choice != 4);  
    }  
}
```

Case 1:

```
System.out.println("Your balance is: $" + balance);
```