Assignment: 02

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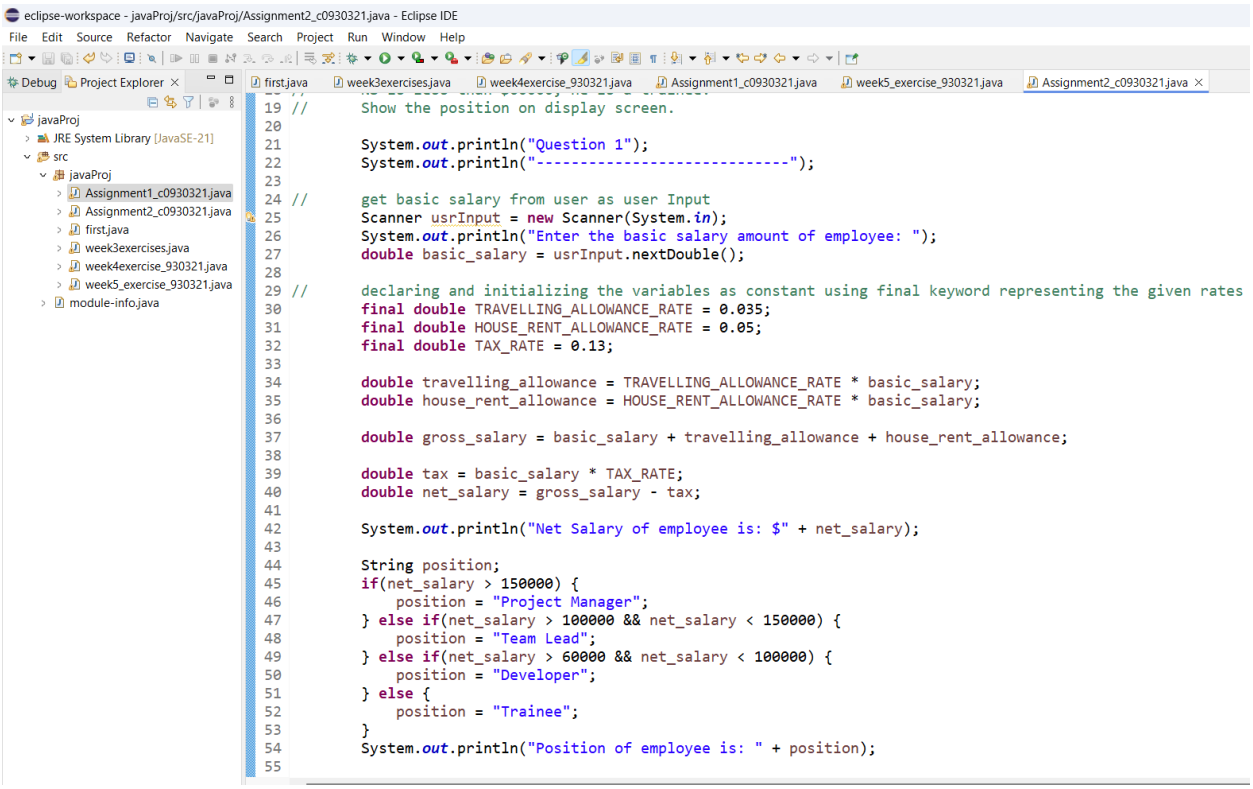
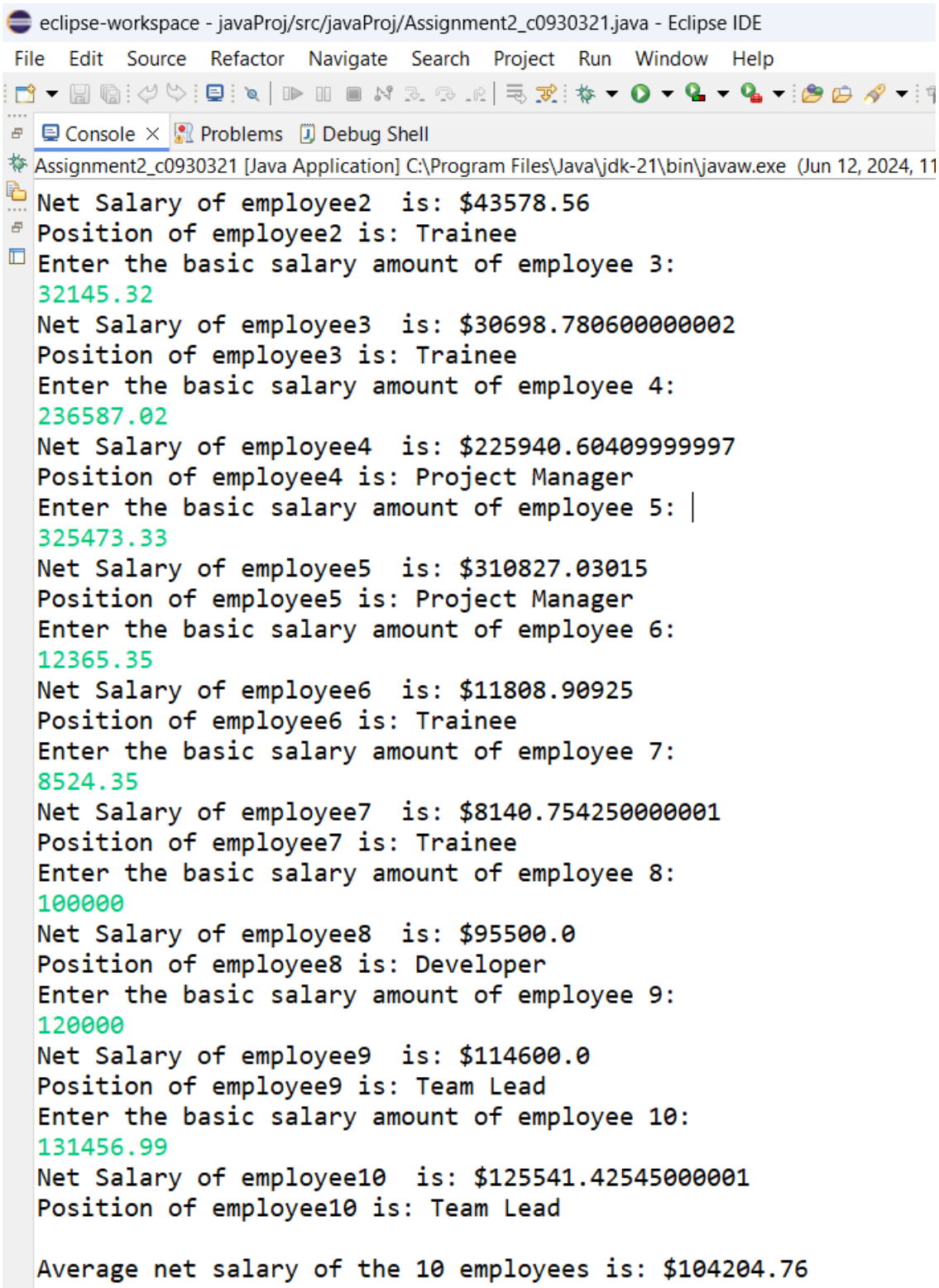
Screenshots of the code with output

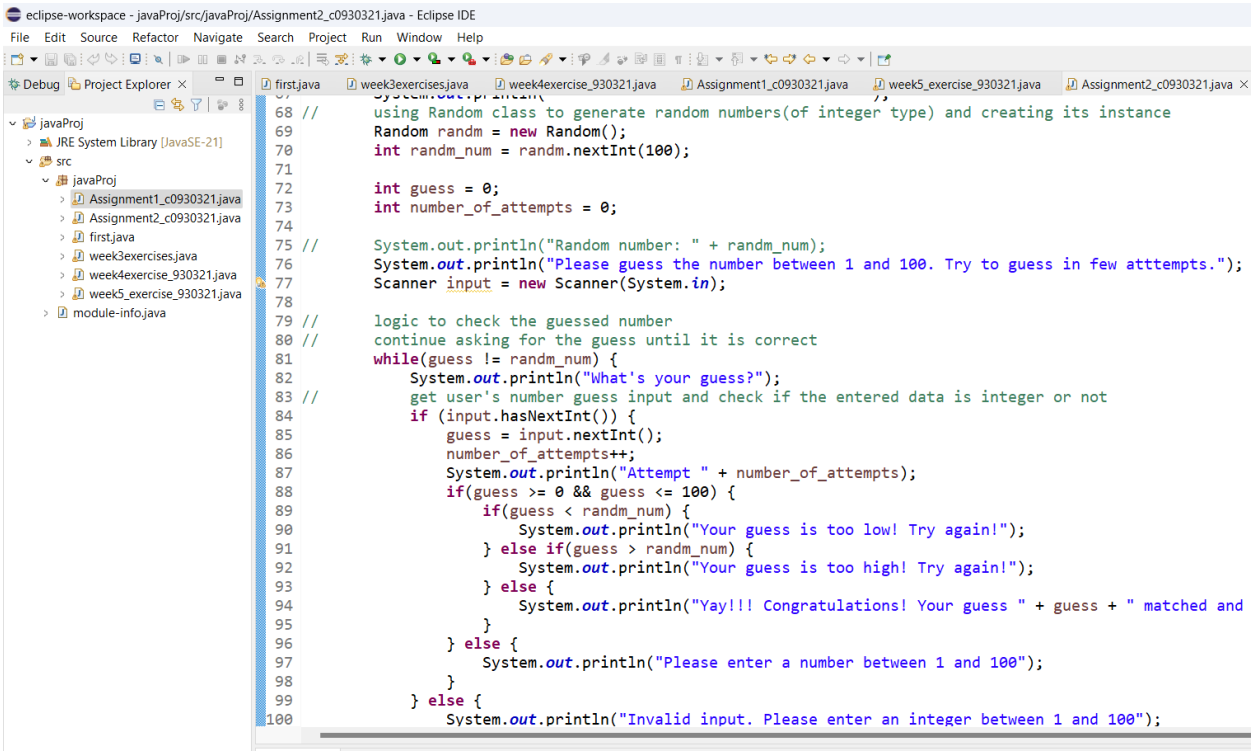
Question 1



output


eclipse-workspace - javaProj/src/javaProj/Assignment2_c0930321.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Console
Problems
Debug Shell
Assignment2_c0930321 [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe (Jun 12, 2024, 11
Net Salary of employee2 is: $43578.56
Position of employee2 is: Trainee
Enter the basic salary amount of employee 3:
32145.32
Net Salary of employee3 is: $30698.780600000002
Position of employee3 is: Trainee
Enter the basic salary amount of employee 4:
236587.02
Net Salary of employee4 is: $225940.60409999997
Position of employee4 is: Project Manager
Enter the basic salary amount of employee 5:
325473.33
Net Salary of employee5 is: $310827.03015
Position of employee5 is: Project Manager
Enter the basic salary amount of employee 6:
12365.35
Net Salary of employee6 is: $11808.90925
Position of employee6 is: Trainee
Enter the basic salary amount of employee 7:
8524.35
Net Salary of employee7 is: $8140.754250000001
Position of employee7 is: Trainee
Enter the basic salary amount of employee 8:
100000
Net Salary of employee8 is: $95500.0
Position of employee8 is: Developer
Enter the basic salary amount of employee 9:
120000
Net Salary of employee9 is: $114600.0
Position of employee9 is: Team Lead
Enter the basic salary amount of employee 10:
131456.99
Net Salary of employee10 is: $125541.42545000001
Position of employee10 is: Team Lead
Average net salary of the 10 employees is: $104204.76

Question 2:


eclipse-workspace - javaProj/src/javaProj/Assignment2_c0930321.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Debug
Project Explorer
javaProj
JRE System Library [JavaSE-21]
src
javaProj
Assignment1_c0930321.java
Assignment2_c0930321.java
first.java
week3exercises.java
week4exercise_930321.java
week5_exercise_930321.java
module-info.java
first.java
week3exercises.java
week4exercise_930321.java
Assignment1_c0930321.java
week5_exercise_930321.java
Assignment2_c0930321.java
68 // using Random class to generate random numbers(of integer type) and creating its instance
69 Random randm = new Random();
70 int randm_num = randm.nextInt(100);
71
72 int guess = 0;
73 int number_of_attempts = 0;
74
75 // System.out.println("Random number: " + randm_num);
76 System.out.println("Please guess the number between 1 and 100. Try to guess in few atttempts.");
77 Scanner input = new Scanner(System.in);
78
79 // logic to check the guessed number
80 // continue asking for the guess until it is correct
81 while(guess != randm_num) {
82 System.out.println("What's your guess?");
83 // get user's number guess input and check if the entered data is integer or not
84 if (input.hasNextInt()) {
85 guess = input.nextInt();
86 number_of_attempts++;
87 System.out.println("Attempt " + number_of_attempts);
88 if(guess >= 0 && guess <= 100) {
89 if(guess < randm_num) {
90 System.out.println("Your guess is too low! Try again!");
91 } else if(guess > randm_num) {
92 System.out.println("Your guess is too high! Try again!");
93 } else {
94 System.out.println("Yay!!! Congratulations! Your guess " + guess + " matched and
95 }
96 } else {
97 System.out.println("Please enter a number between 1 and 100");
98 }
99 } else {
100 System.out.println("Invalid input. Please enter an integer between 1 and 100");

output

```
70          int randm_num = randm.nextInt(100);
```

Console × Problems Debug Shell

Assignment2_c0930321 [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe (Jun 12, 2024, 11:12:25 p.m.) [pid: 19212]

```
Question 2
----------------------------------
****** Number Guessing Game ******
----------------------------------
Please guess the number between 1 and 100. Try to guess in few atttempts.
What's your guess?
50
Attempt 1
Your guess is too low! Try again!
What's your guess?
70
Attempt 2
Your guess is too high! Try again!
What's your guess?
60
Attempt 3
Your guess is too high! Try again!
What's your guess?
55
Attempt 4
Your guess is too low! Try again!
What's your guess?
58
Attempt 5
Your guess is too high! Try again!
What's your guess?
57
Attempt 6
Yay!!! Congratulations! Your guess 57 matched and you took 6 tries
```

Question 3:

```java
/*      Question 3: program to calculate the sum of following series where n is input by user
 *      1 + 1/2 + 1/3 + 1/4 + 1/5 + ..... 1/n
 * */
        System.out.println();
        System.out.println("Question 3");
        System.out.println("----------------------------");
        System.out.println("Sum of the Series of form: 1 + 1/2 + 1/3 + 1/4 + ..... 1/n");
        System.out.println("Enter the value of n to find the sum: ");
        int n = usrInput.nextInt();
        double sum = 0.0;

//      logic to calculate sum of the series
        for(int i = 1; i <= n; i++) {
            sum += 1.0/i;
        }
        System.out.println("The sum of the " + n + " series is: "+ sum);
```

output

```
Console × Problems Debug Shell
<terminated> Assignment2_c0930321 [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe (J
Question 3
----------------------------
Sum of the Series of form: 1 + 1/2 + 1/3 + 1/4 + ..... 1/n
Enter the value of n to find the sum:
6
The sum of the 6 series is: 2.4499999999999997
```