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| Hands on Exercise Objective |
| After completing the hands-on exercises, you will be able to:   * Develop simple Java program using nested IF statement. |

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| Problem Statement: Develop a calculator for calculating the simple interest for a principle, number of years and rate of interest.  Simple interest = P \* N \* R/100.  Create a class ***SimpleInterestCalculator*** withthree instance variable ***double principal amount, int number of years***. Develop a method ***calculateSimpleInterest()*** and implement the logic as follows.  The business logic for calculating the simple interest is as follows.  If principal is greater than one lakh  If number of years is greater than 10  Simple interest = P \* N \*10/100  Otherwise if number of years < 10  Simple interest = P \* N \*9.5/100  Else if amount is less than one lakh  If number of years is greater than 10  Simple interest = P \* N \*5/100  Otherwise if number of years < 10  Simple interest = P \* N \*4.5/100  The calculated simple interest is to be printed in the  ***calculateSimpleInterest()*** method.  **“The interest amount for a principal of <principal amount> and years <number of years> is <Result>”**  Develop a main method which sets the instance variables and invoke the method  ***calculateSimpleInterest().***  Now Execute the class for the following test cases,  **Test Case 1:** Specify the following values and run the main method   1. Set the value of  ***principal amount*** as 2 lakh and number of years has 12 2. Invoke the method  ***calculateSimpleInterest*** ().   **Expected Output:** The following messages should be displayed in the console  **The interest amount for a principal 200000 and years 12 is 2400000**  **Test Case 2:** Specify the following values and run the main method   1. Set the value of  ***principal amount*** as 50,000 and number of years has 12 2. Invoke the method  ***calculateSimpleInterest*** ().   **Expected Output:** The following messages should be displayed in the console  **The interest amount for a principal 50000 and years 12 is 30000**  **Test Case 3:** Specify the following values and run the main method   1. Set the value of  ***principal amount*** as 50,000 and number of years has 5 2. Invoke the method  ***calculateSimpleInterest*** ().   **Expected Output:** The following messages should be displayed in the console  **The interest amount for a principal 50,000 and years 5 is 11,250.** |