## Lab Exercise 001

1. Write a program called **CheckPassFail** which prints "PASS" if the int variable "mark" is more than or equal to 50; or prints "FAIL" otherwise. The program shall always print “DONE” before exiting.

##### **Hint**

Use >= for *greater than or equal to* comparison.

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\* Trying if-else statement.

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public class **CheckPassFail** { // Save as "CheckPassFail.java"

public static void main(String[] args) { // Program entry point

int mark = 49; // Set the value of "mark" here!

System.out.println("The mark is " + mark);

// if-else statement

if ( ...... ) {

System.out.println( ...... );

} else {

System.out.println( ...... );

}

System.out.println( ...... );

}

}

Try mark = 0, 49, 50, 51, 100 and verify your results.

2. Write a program called **CheckOddEven** which prints "Odd Number" if the int variable “number” is odd, or “Even Number” otherwise. The program shall always print “bye!” before exiting.

##### **Hint**

*n* is an even number if (*n* % 2) is 0; otherwise, it is an odd number. Use == for comparison, e.g., (n % 2) == 0.

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\* Trying if-else statement and modulus (%) operator.

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public class **CheckOddEven** { // Save as "CheckOddEven.java"

public static void main(String[] args) { // Program entry point

int number = 49; // Set the value of "number" here!

System.out.println("The number is " + number);

if ( ...... ) {

System.out.println( ...... ); // even number

} else {

System.out.println( ...... ); // odd number

}

System.out.println( ...... );

}

}

Try number = 0, 1, 88, 99, -1, -2 and verify your results.

3. Write a program called **PrintNumberInWord** which prints "ONE", "TWO",... , "NINE", "OTHER" if the int variable "number" is 1, 2,... , 9, or other, respectively. Use (a) a "nested-if" statement; (b) a "switch-case-default" statement.

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##### **Hint**

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\* Trying nested-if and switch-case statements.

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public class **PrintNumberInWord** { // Save as "PrintNumberInWord.java"

public static void main(String[] args) {

int number = 5; // Set the value of "number" here!

// Using nested-if

if (number == 1) { // Use == for comparison

System.out.println( ...... );

} else if ( ...... ) {

......

} else if ( ...... ) {

.....

} else {

......

}

// Using switch-case-default

switch(number) {

case 1:

System.out.println( ...... ); break; // Don't forget the "break" after each case!

case 2:

System.out.println( ...... ); break;

.....

default: System.out.println( ...... );

}

}

}4. Write a program c

alled **PrintDayInWord** which prints “Sunday”, “Monday”, ... “Saturday” if the int variable "dayNumber" is 0, 1, ..., 6, respectively. Otherwise, it shall print "Not a valid day". Use (a) a "nested-if" statement; (b) a "switch-case-default" statement.

Try dayNumber = 0, 1, 2, 3, 4, 5, 6, 7 and verify your results.

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