Exercise 4

7) What do mean by the scope of a variable? Explain with examples

The scope of the variable defines the extent to which the variable can be accessed and used in. If it’s in a function or main program it’s usually a local variable because it can only be used in that scope.

If I take for(int I =0 ; I < arr.length ; i++)

Then i can only be used within this for loop

8) Why do you think adhering to the general convention and standard practices is important as a software engineer?

Software engineering programming standards ensure that the code is consistent and simple to maintain. This is because anyone can comprehend it and alter it at any time. If the source code is written consistently, it becomes very simple to find and fix software flaws.

9) What are good coding practices in programming?

Use consistent indentation

Limit line length

Follow good naming Conventions

Keep code simple

Avoid deep nesting

Follow the DRY(Don’t repeat yourself) principle

10) What do you mean by the fall-down effect in relation to the switch statement in Java?

The fall down effect occurs when in a switch case there if no any break statements and so the next case conditions are also triggered

11) What is the difference between break and continue statements. Explain using a code sample

A break statement is used to break out of a loop while continue just bypass the turn and goes to the next turn

EX:

For(int I =0 ; I < arr.length ; i++){

Count++;

Break;

}

This would not run as it would just increment the count and break out of the loop

So the count would be 1 in this case

For(int I =0 ; I < arr.length ; i++){

Count++;

Continue;

Count--;

}

In this case the count would be same as the arr.length and would not reach count--