SECTION 1: Error-Driven Learning Assignment: Loop Errors

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| Sr.  No, | Snippet | Correction | Output |
| 1 |  | Convert i- - as i++ |  |
| 2 |  | In while condition there is need of < sign |  |
| 3 |  | public class DoWhileIncorrectCondition {  public static void main(String[] args) {  int num = 0;  do {  System.out.println(num);  num++;  } while (num < 5);      }  }  Only condition change num<5 |  |
| 4 |  | public class OffByOneErrorForLoop {  public static void main(String[] args) {  for (int i = 1; i <10; i++) {  System.out.println(i);  }  // Expected: 10 iterations with numbers 1 to 10  // Actual: Prints numbers 1 to 10, but the task expected only 1 to 9  }  }  Equal sign deleted (i<=10 converted to i<10) |  |
| 5 |  | public class WrongInitializationForLoop {  public static void main(String[] args) {  for (int i = 10; i >= 0; i--) {  System.out.println(i);  }  }  }  Convert i- -to i++ |  |
| 6 |  | public class MisplacedForLoopBody {  public static void main(String[] args) {  for (int i = 0; i < 5; i++)  {  System.out.println(i);  System.out.println("Done");  }  }  }  After for Loop there is a bracket |  |
| 7 |  | public class UninitializedWhileLoop {  public static void main(String[] args) {  int count=0;      while (count < 10) {  System.out.println(count);  count++;  }  }  }  Intialization  Count=0 |  |
| 8 |  | public class OffByOneDoWhileLoop {  public static void main(String[] args) {  int num = 1;  do {  System.out.println(num);  num++;  } while (num < 6);  }  } |  |
| 9 |  | public class InfiniteForLoopUpdate {  public static void main(String[] args) {  for (int i = 0; i < 5; i += 2) {  System.out.println(i);  }  }  } |  |
| 10 |  | public class IncorrectWhileLoopControl {  public static void main(String[] args) {  int num = 10;  while (num ==10) {  System.out.println(num);  num--;  }  }  } |  |
| 11 |  | public class IncorrectLoopUpdate { public static void main(String[] args) { int i = 0; while (i < 5) { System.out.println(i); i += 2; // Error: This may cause unexpected results in output } } } |  |
| 12 |  | public class LoopVariableScope {  public static void main(String[] args) {  for (int i = 0; i < 5; i++) {  int x = i \* 2;  System.out.println(x);  }  // Error: 'x' is not accessible here  }  } |  |