A. Identify Big-O Notations

a) O(1)
b) O(n)
c) O(log n) – Binary Search
d) O(n^2) – Quick Sort
e) O(n^2) - Bubble Sort

B. Program

a) Animal Class

```
6 usages
public class Animals {
    2 usages
    private String species;
    3 usages
    private int age;
    3 usages
    public Animals(String species, int age){
        this.species = species;
        this.age = age;
    }

    3 usages
    public String getSpecies(){
        return species;
    }
    3 usages
    public int getAge(){
        return age;
    }
    3 usages
    public void setAge(int age) {
        this.age = age;
    }
}
```

b) Run Animal

Exercise 1 LAB

```java
public class RunAnimals {
    public static void main(String[] args) {
        Animals tiger = new Animals( species: "Tiger",  age: 9);
        Animals bird = new Animals( species: "Bird",  age: 10);
        Animals snake = new Animals( species: "Snake",  age: 5);

       tiger.setAge(9);
       bird.setAge(10);
       snake.setAge(5);

       System.out.println("Species:" + tiger.getSpecies());
       System.out.println("Age: " + tiger.getAge());

       System.out.println("Species:" + bird.getSpecies());
       System.out.println("Age: " + bird.getAge());

       System.out.println("Species:" + snake.getSpecies());
       System.out.println("Age: " + snake.getAge());
    }
}
```