ESOF 322
Assignment 3
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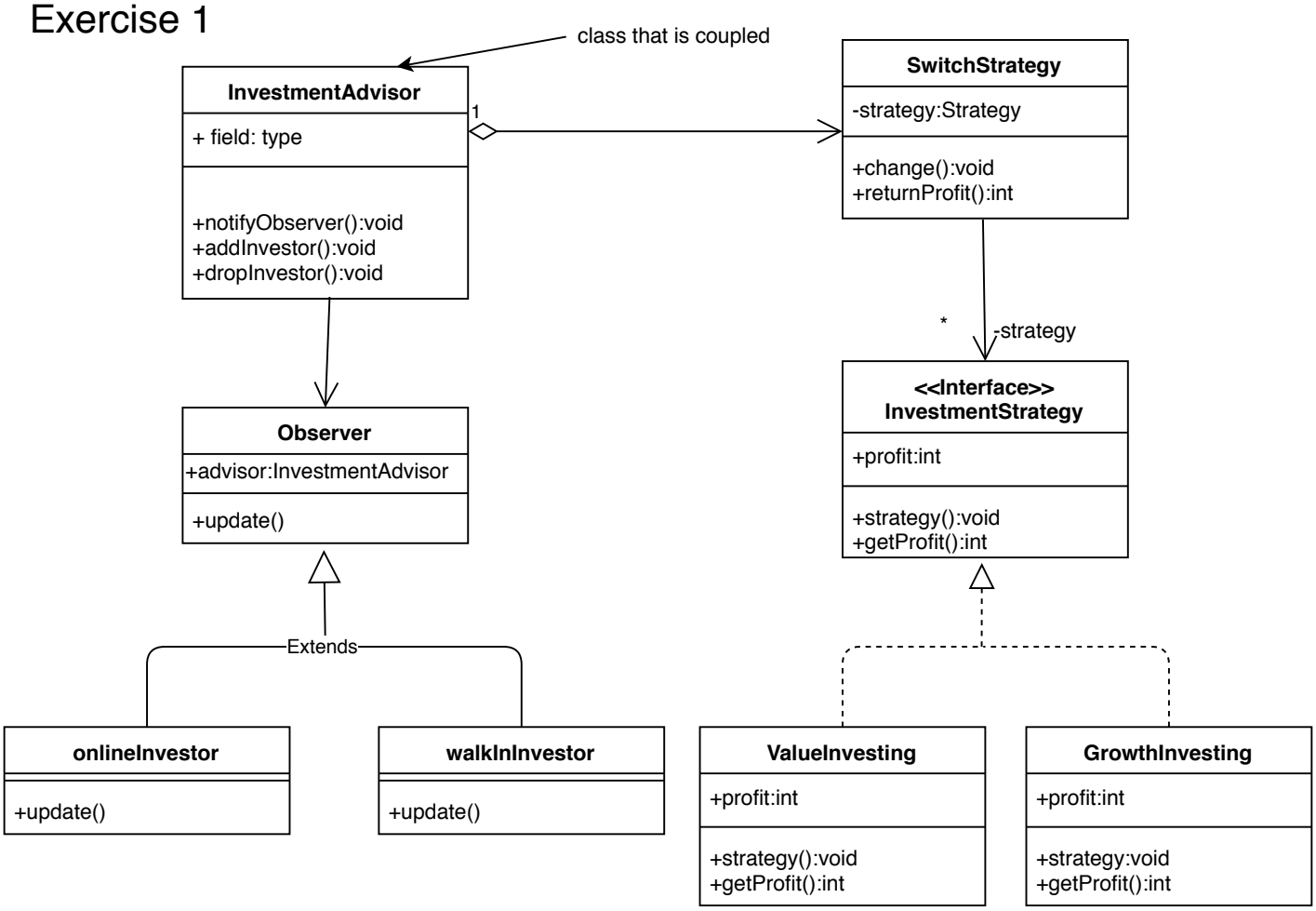
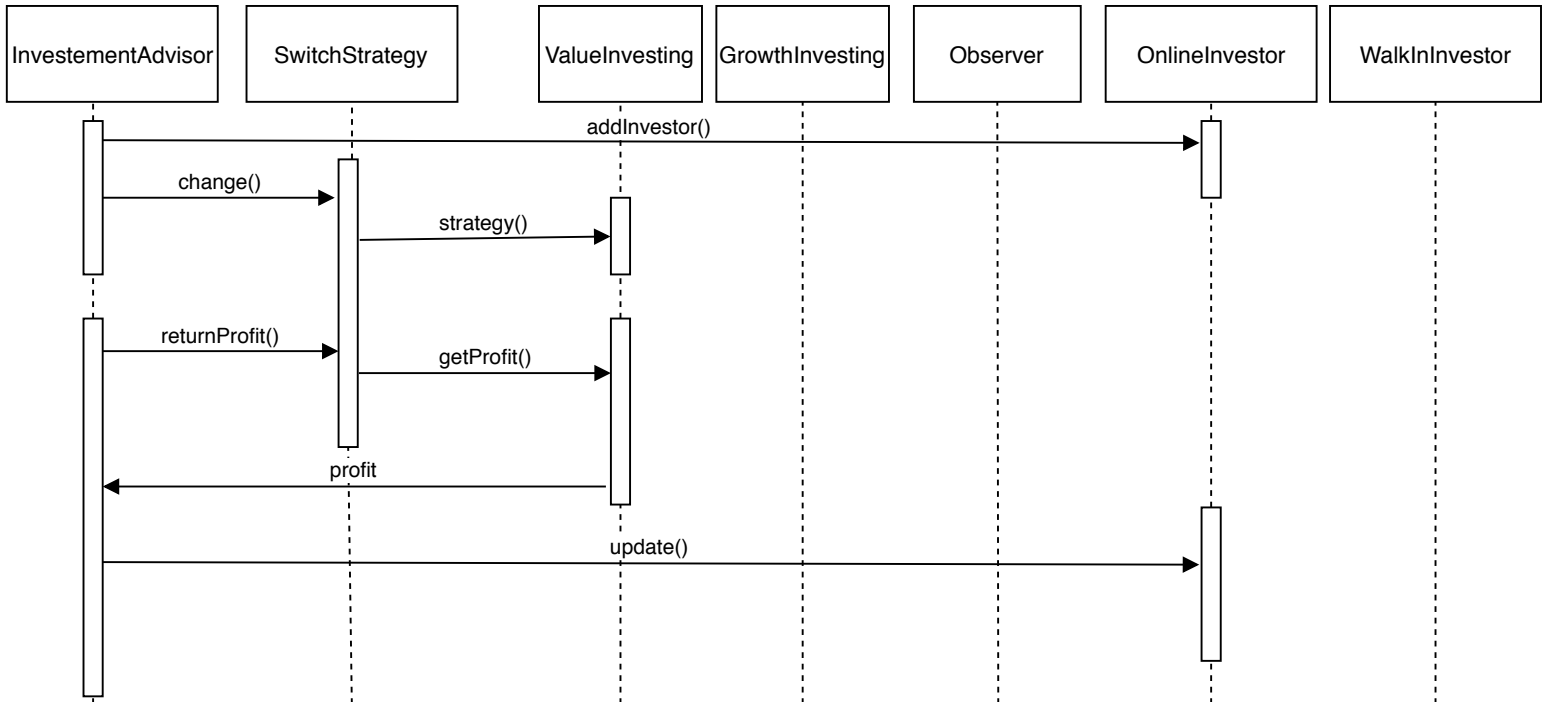
Exercise 1





Exercise 2

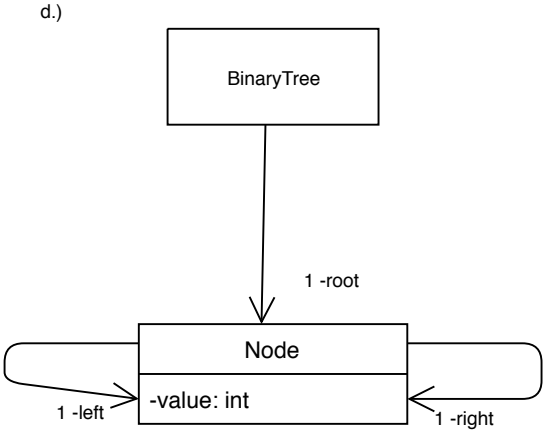
a.)

32 story points, 3 person team, working in sprints of 3 weeks = 45 total man days
Calculate estimated velocity for the next sprint based on another 3 week sprint,
but we have added 2 engineer's and 1 can only work 80% of the time.
Estimated velocity(based on last sprint) = (Total available man days)(Focus Factor)
Focus factor of last sprint = 32/45 = 71%
Total man days = (4 engineers x 15) + (One engineer @ 80%) = 72 total man days
Estimated Velocity = 72 x .71 = 51.12 story points

b.) If it's a new team you would use the average of accepted story points over the past 3 to 5 iterations for velocity and taking the average over the development teams capacity.

c.) The pseudo-fibonacci poker seems like a good idea but i think an easier and speedier Version would still discuss the reason why someone would have a large or small outlier but then just average out the numbers and if the numbers were to fall within the timeframe that "topic" would then fall into a priority category. Say our timeline was 3 weeks(15 days x 3 Engineers) 45 days and our average from the poker was 30 days, that would assume the highest priority and anything lower would be in a lower priority.

d.)



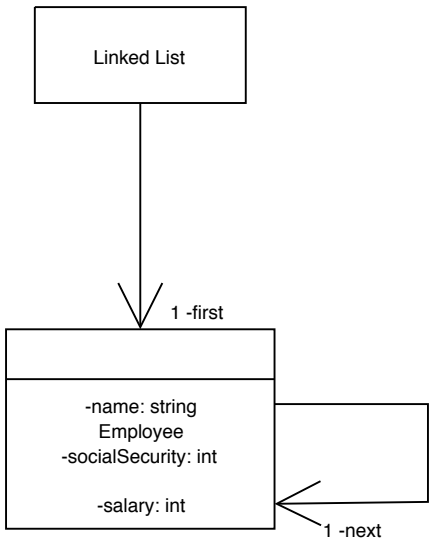
e.)

```
public class BinaryTree {
   private Node root;

   public BinaryTree() {
   root = null;
   }
   public BinaryTree(Node root) {
   this.root = root;
   }
   public void insert(Node newNode) {
   }
}
public class Node {
   private Node left, right;
   int value

   public Node(int v) {
   value = v;
   }
}
```

f.)



g.)

```
public class Employee {
   private String name;
   private int socialSecurity;
   private int salary;

   public Employee(String name, int socialSecurity, int salary){
   name = name;
   socialSecurity = socialSecurity;
   salary = salary;

   }

   public String getName() {
   return name;
   }

   public void setName(String name) {
   this.name = name;
   }


   public int getSocialSecurity() {
   return socialSecurity;
   }

   public void setSocialSecurity(int socialSecurity) {
   this. socialSecurity = socialSecurity;
   }


   public int getSalary() {
   return salary;
   }

   public void setSalary(int salary) {
   this.salary = salary;
   }
}


import java.util.LinkedList;

public class Linked_list {
   private LinkedList<Employee> linked_list = new LinkedList<>();

   public void addTail(Employee newNode){
   linked_list.addLast(newNode);
   }
}
```