AMERICAN INTERNATIONAL UNIVERSITY BANGLADESH

Faculty of Business Administration

Assignment Cover Sheet

Assignment Title: OOP1 Assignment 1

Assignment Number: 01 Due Date: 10-02-2020 Semester: 4th
Subject Name: OBJECT ORIENTED PROGRAMMING 1 (JAVA) Section: T
Course Instructor: MD MASUM BILLAH Degree Program: CSE

Group Name (if applicable):

No.	Student Name	ID	Student Signature	Date
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Number 1:

Constructors--> public A() { n=0;}
public A(int A) {n=a;}
Mutator Functions--> public void f() { n++;}
public void g() { f();n=2*n;f();}
Accessor Functions--> {return n;}
"n" is a private variable.

Number 2:

```
class A{
public A() { n = 0; }
public A(int a) { n = a; }
public void f() { n++; }
public void g() { f(); n = 2 * n; f(); }
public int h() { return n; }
public void k() { System.out.println(n); }
private int n;
public static void main(String[] args) {
A a = new A();
A b = new A(2);
A c = b;
A d = new A(3);
a.f();
b.g();
c.f();
d.g();
d.k();
```

```
A e = new A(a.h()+ b.h()+ c.h());
}}
```

Number 3:

```
package fd;
public class person{
    private String name;
    private int birthDayYear;
    person(String giveName, int yearOfBirth)
    {
        name = giveName;
        birthDayYear = yearOfBirth;
}
    public void changeName(String name)
    {
        this.name = name;
    }
    public int getAgeInYears(int currentYear)
    {
        int age;
        age = currentYear - birthDayYear;
        return age;
    }
    public String getName()
    {
        return name;
    }
    public static void main(String args[])
    {
        person p1 = new person("Paul", 2000);
        System.out.println("Current Age: "+p1.getAgeInYears(2020));
        System.out.println("name: "+p1.getName());
        p1.changeName("Shnigdha"); // To change the name
        System.out.println("name: "+p1.getName());
}
}
```

Number 4:

```
import java.util.Scanner;
class Address
{
 int house_num,street_num,postal_code,aprtmnt_num;
String city,state;
 public Address  (int house_num,String city,String state ,int street_num,int postal_code,int
     aprtmnt_num)
 {
this.house_num=house_num;
this.street_num=street_num;
this.aprtmnt_num=aprtmnt_num;
this.city=city;
this.state =state;
this.postal_code=postal_code;

}

void Compare ()
{
Scanner obj=new Scanner(System.in);
System.out.println("enter Postal Code ;");
 int pcd=obj.nextInt();
if(postal_code<=pcd)
{
System.out.println("House Num: "+house_num +" Street: "+street_num +" Apertment
     Num: "+aprtmnt_num);
System.out.println("City: "+city +" State: "+state+" POstal Code: "+postal_code);
}
else
{
System.out.println("City: "+city +", State: "+state+", Postal Code: "+postal_code);
System.out.println("House Num: "+house_num +" Street: "+street_num +" Apertment
     Num: "+aprtmnt_num);
}
}
public static void main (String [] args)
{

Address A=new Address  (12,"DHAKA","Bangladesh ",04,1229,05);
A.Compare();
}
```

```
}

}
```

Number 5:

```
package fd;
import java.util.Scanner;
public class Account
{
float balance;
int acc_num;
void Add(float amount )
{
balance=balance+amount;
}
void Withdraw(float amount)
{
balance=balance-amount;
}
void CheckBalance()
{
System.out.println("Dear customer your current balance is "+balance);
}
public static void main(String[] args)
{
boolean check=true;
Scanner obj=new Scanner (System.in);
Account a=new Account();
while(check==true)
{
System.out.println("1.Add balance\n2.Withdraw \n3.Current balance\n0.To End
    program");
int x=obj.nextInt();
switch(x)
{
case 1:
System.out.println("Enter a amount to add your account ");
float amount=obj.nextFloat();
a.Add(amount);
break;
case 2:
System.out.println("Enter a amount to withdraw ");
float amnt=obj.nextFloat();
a.Withdraw(amnt);
break;
case 3:
```

```
a.CheckBalance();
break;
case 0:
check= false;
}
}
} }
```

Number 6:

```
public class Account {
int id;
Date dateCreated;
double balance, annualInteretRate;
public Account() {
}
public void setID(int i) {
id = i;
}
public int getID() {
return id;
}
public void withdraw(double amount)
{
if (balance >= amount)
{
balance -= amount;
}
else
{
System.out.println("Insufficient funds");
}
}
{
balance += amount;
}
{
return balance;
}
public double transfer ()
{
balance += RATE;
return balance;
}
```