**Coding Assessment (Java)**

**1.Bank Account Details**

**Accountdetails.java**

package Student;

import java.util.\*;

public class Accountdetails

{

public static Account getAccountDetails()

{

Account acc=new Account();

Scanner sc =new Scanner(System.in);

System.out.println("Enter account id:");

acc.setAccountId(sc.nextInt());

sc.nextLine();

System.out.println("Enter account type:");

acc.setAccountType(sc.nextLine());

int b;

do

{

System.out.println("Enter Balance");

acc.setBalance(sc.nextInt());

b=acc.getBalance();

if(b<=0)

System.out.println("Balance should be positive");

}

while(b<=0);

return acc;

}

public static int getWithdrawAmount()

{

Scanner sc =new Scanner(System.in);

int w;

do

{

System.out.println("Enter amount to be withdrawn:");

w=sc.nextInt();

if(w<=0)

System.out.println("Amount should be positive");

}

while(w<=0);

return w;

}

public static void main(String[] args)

{

Account accObj=new Account();

accObj=getAccountDetails();

int c=getWithdrawAmount();

accObj.withdraw(c);

}

}

**Account.java**

package Student;

public class Account

{

private int accountId;

private String accountType;

private int balance;

public int getAccountId()

{

return accountId;

}

public String getAccountType()

{

return accountType;

}

public int getBalance()

{

return balance;

}

public void setAccountId(int id)

{

accountId=id;

}

public void setAccountType(String s)

{

accountType=s;

}

public void setBalance(int b)

{

balance=b;

}

public boolean withdraw(int w)

{

if(getBalance()<w)

{

System.out.println("Sorry!!! No enough balance");

return false;

}

else

{

System.out.println("Balance amount after withdraw: "+(getBalance()-w));

return true;

}

}

}

**2.Counting the word in the given file**

**Test.java**

import java.io.File;

import java.io.FileReader;

import java.io.BufferedReader;

import java.util.Scanner;

public class Test

{

public static void main(String[] args) throws Exception

{

int cnt=0;

String s;

String[] buffer;

File f1=new File("data.txt");

FileReader fr = new FileReader(f1);

BufferedReader bfr = new BufferedReader(fr);

Scanner sc = new Scanner(System.in);

System.out.println("Enter the word to be Searched");

String wrd=sc.nextLine();

while((s=bfr.readLine())!=null)

{

buffer=s.split(" ");

for (String chr : buffer)

{

if (chr.equals(wrd))

{

cnt++;

}

}

}

if(cnt==0)

{

System.out.println("Word not found!");

}

else

{

System.out.println("Count : "+cnt);

}

fr.close();

}

}

**data.txt**

knowledge

abc

def

knowledge

knowledge

asdfg

Knowledge

**3.Average and Grade Calculation**

**Studentmain.java**

package Student;

import java.util.Scanner;

public class Studentmain {

public static void main(String[] args)

{

Student s=getStudentDetails();

s.calculateAvg();

s.findGrade();

System.out.println("Id:" +s.getId());

System.out.println("Name:" +s.getName());

System.out.println("Average:"+String.format("%.2f",s.getAverage()));

System.out.println("Grade:" +s.getGrade());

}

public static Student getStudentDetails()

{

Scanner sc=new Scanner(System.in);

System.out.println("Enter the id:");

int id=Integer.parseInt(sc.nextLine());

System.out.println("Enter the name: ");

String name=sc.nextLine();

System.out.println("Enter the no of subjects:");

int n=sc.nextInt();

if(n<=0)

{

while(n<=0)

{

System.out.println("Invalid number of subject");

System.out.println("Enter the no of subjects");

n=sc.nextInt();

}

}

int arr[]=new int[n];

for(int a=0;a<n;a++)

{

System.out.println("Enter mark for subject "+(a+1)+":");

int b=sc.nextInt();

if(b<0||b>100)

{

System.out.println("Invalid Mark");

System.out.println("Enter mark for subject "+(a+1)+":");

b=sc.nextInt();

}

arr[a]=b;

}

Student obj=new Student(id,name,arr);

obj.setId(id);

obj.setName(name);

return obj;

}

}

**Student.java**

package Student;

public class Student {

private int id;

private String name;

private int marks[];

private float average;

private char grade;

public Student(int a,String b,int[] c)

{

id=a;

name=b;

marks=c;

}

public void setId(int n)

{

id=n;

}

public int getId()

{

return id;

}

public void setMarks(int[] marks)

{

this.marks=marks;

}

public int[] getMarks()

{

return marks;

}

public void setName(String n)

{

name=n;

}

public String getName()

{

return name;

}

public void setAverage(float n)

{

average=n;

}

public float getAverage()

{

return average;

}

public void setGrade(char n)

{

grade=n;

}

public char getGrade()

{

return grade;

}

public void calculateAvg()

{

float a1=0.0F;

for(int a=0;a<this.getMarks().length;a++)

{

a1=a1+this.marks[a];

}

this.setAverage(a1/getMarks().length);

}

public void findGrade()

{

int min=this.marks[0];

for(int b=0;b<this.getMarks().length;b++)

{

if(this.marks[b]<min)

{

min=this.marks[b];

}

}

if(min<50)

{

this.setGrade('F');

}

else if(this.getAverage()>=80 && this.getAverage()<=100)

{

this.setGrade('O');

}

else

{

this.setGrade('A');

}

}

}