**Exercise : 1**

package OopsAdvance;

public class AccountSettings {

public long accNum;

public double balance;

public Person accHolder;

public void deposit(double bal) {

balance+=bal;

}

public void withdraw(double bal){

double res = balance-bal;

if(res <= 500) {

System.*out*.println("Minimum balance cannot be WithDraw");

return;

}

balance-=bal;

}

public double getBalance() {

return balance;

}

public long getAccNum() {

return accNum;

}

public void setAccNum(long accNum) {

this.accNum = accNum;

}

public Person getAccHolder() {

return accHolder;

}

public void setAccHolder(Person accHolder) {

this.accHolder = accHolder;

}

public void setBalance(double balance) {

this.balance = balance;

}

public static void main(String[] args) {

Person Per = new Person();

Per.setName("Vikas");

Per.setBalance(5000);

Person Pe = new Person();

Pe.setName("Akash");

Pe.setBalance(4000);

Per.deposit(2000);

Pe.withdraw(2000);

SavingsAccount savings = new SavingsAccount();

savings.withdraw(2000);

System.*out*.println("Vikas account balance : "+Per.balance);

System.*out*.println("Pe balance: "+Pe.balance);

}

}

class Person extends AccountSettings{

String Name;

float age;

public String getName() {

return Name;

}

public void setName(String name) {

Name = name;

}

public float getAge() {

return age;

}

public void setAge(float age) {

this.age = age;

}

}

class SavingsAccount extends AccountSettings{

final int minimumBalance = 500;

@Override

public void withdraw(double bal) {

double res = balance - bal;

if(res <= 500) {

System.*out*.println("Cannot WithDraw from minimum balance");

return;

}

balance-=bal;

}

}

class CurrentAccount extends AccountSettings{

double overdraftLimit = 500;

@Override

public void withdraw(double bal) {

double res = balance - bal;

if(res <= 500) {

System.*out*.println("true");

}

}

}

**Exercise : 2**

package OopsAdvance;

 public class Main {

public static void main(String[] args) {

Book book1 = new Book();

JournalPaper paper1 = new JournalPaper();

Video video1 = new Video();

CD cd1 = new CD();

System.*out*.println(book1.getTitle());

System.*out*.println(paper1.getTitle());

System.*out*.println(video1.getTitle());

System.*out*.println(cd1.getTitle());

}

}

abstract class Item {

private int indentificationNumber;

private String title;

private int numberOfCopies;

public int getIndentificationNumber() {

return indentificationNumber;

}

public void setIndentificationNumber(int indentificationNumber) {

this.indentificationNumber = indentificationNumber;

}

public String getTitle() {

return title;

}

public void setTitle(String title) {

this.title = title;

}

public int getNumberOfCopies() {

return numberOfCopies;

}

public void setNumberOfCopies(int numberOfCopies) {

this.numberOfCopies = numberOfCopies;

}

}

abstract class WrittenItem extends Item{

private String author;

public String getAuthor() {

return author;

}

public void setAuthor(String author) {

this.author = author;

}

}

class Book extends WrittenItem{

public Book() {

setAuthor("Rome");

setIndentificationNumber(1);

setTitle("LifeStory");

setNumberOfCopies(10);

}

}

class JournalPaper extends WrittenItem{

private int yearPublished;

public int getYearPublished() {

return yearPublished;

}

public void setYearPublished(int yearPublished) {

this.yearPublished = yearPublished;

}

public JournalPaper() {

setAuthor("Rose");

setIndentificationNumber(2);

setTitle("Life");

setNumberOfCopies(10);

setYearPublished(2020);

}

}

abstract class MediaItem extends Item{

private int runTime;

public int getRunTime() {

return runTime;

}

public void setRunTime(int runTime) {

this.runTime = runTime;

}

}

class Video extends MediaItem{

private String director;

private String genre;

private int yearReleased;

public String getDirector() {

return director;

}

public void setDirector(String director) {

this.director = director;

}

public String getGenre() {

return genre;

}

public void setGenre(String genre) {

this.genre = genre;

}

public int getYearReleased() {

return yearReleased;

}

public void setYearReleased(int yearReleased) {

this.yearReleased = yearReleased;

}

public Video() {

setIndentificationNumber(3);

setTitle("SuccessStory");

setNumberOfCopies(10);

setRunTime(30);

setDirector("Ram");

setGenre("Documentation");

setYearReleased(2010);

}

}

class CD extends MediaItem{

private String artist;

private String genre;

public String getArtist() {

return artist;

}

public void setArtist(String artist) {

this.artist = artist;

}

public String getGenre() {

return genre;

}

public void setGenre(String genre) {

this.genre = genre;

}

public CD() {

setIndentificationNumber(4);

setTitle("Drama");

setNumberOfCopies(10);

setRunTime(30);

setArtist("Yash");

setGenre("Comedy");

}

} 