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| **Experiment No.** | 2B |

| **AIM:** | To study constructor overloading. |
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| **Program 1** | |
| **PROBLEM STATEMENT :** | Write a menu driven program to recruit an employee (depending on his performance in various rounds) in some software company using constructor overloading. |
| **PROGRAM:** | import java.util.Scanner;  class Posting{  private int courseWork, TechTest, interview, AptTest;    Posting(){  this.courseWork = courseWork;  this.TechTest = TechTest;  this.interview = interview;  this.AptTest = AptTest;  }    public Posting(int interview){  if(interview>=90){  System.out.println("You're eligible for the designation of 'Project Manager'.");  }  else{  System.out.println("You're ineligible for the designation of 'Project Manager'.");  }  }    public Posting(int TechTest, int interview){  if(interview>=85 && TechTest>=85){  System.out.println("You're eligible for the designation of 'Team Leader'.");  }  else{  System.out.println("You're ineligible for the designation of 'Team Leader'.");  }  }    public Posting(int courseWork, int AptTest, int TechTest, int interview){  if(interview>=80 && TechTest>=80 && AptTest>=80 && courseWork>=80){  System.out.println("You're eligible for the designation of 'Programmer'.");  }  else{  System.out.println("You're ineligible for the designation of 'Programmer'.");  }  }    }  class recruit{  public static void main(String [] arr){    Scanner sc = new Scanner(System.in);  int y=0;  do{  System.out.println("Do you want to exit ?(Enter '1' to exit or any other digit to proceed)");  int z = sc.nextInt();  if(z!=1){  System.out.print("Enter marks of all the exams(Max. 100)\nCourse Work marks : ");  int cwm = sc.nextInt();  if(cwm<=100 && cwm>=0){  System.out.print("Aptitude Test marks : ");  int atm = sc.nextInt();  if(atm<=100 && atm>=0){  System.out.print("Technical Test marks : ");  int ttm = sc.nextInt();  if(ttm<=100 && ttm>=0){  System.out.print("Marks scored in the interview round : ");  int im = sc.nextInt();  if(im<=100 && im>=0){  System.out.print("Enter the post you're applying for -\n1. Programmer\n2. Team Leader\n3. Manager\nEnter your choice : ");  y = sc.nextInt();  Posting post = new Posting();  int x = (cwm+atm+ttm+im)/4;    switch(y){  case 1: Posting programmer = new Posting(cwm,atm,ttm,im);  if(x>=85){ Posting teamLeader = new Posting(ttm,im); }  if(x>=90){ Posting manager = new Posting(im); }  break;    case 2: Posting teamLeader = new Posting(ttm,im);  if(x>=90){ Posting manager = new Posting(im); }  break;    case 3: Posting manager = new Posting(im);  break;    default : System.out.println("Invalid choice!!");    }  }  else{ System.out.println("Invalid marks!!"); }  }  else{ System.out.println("Invalid marks!!"); }  }  else{ System.out.println("Invalid marks!!"); }  }  else { System.out.println("Invalid marks!!"); }  }  else{  break;  }  }  while(y!=4);  }  } |
| **RESULT:** | |
| **Program 2** | |
| **PROBLEM STATEMENT :** | Write a program to simulate a simple banking system. |
| **PROGRAM:** | import java.util.Scanner;  public class bank1{  public static void main(String [] arr) {  Scanner sc = new Scanner(System.in);  System.out.print("Enter account details -\nAccount Type : ");  String acctype = sc.nextLine();  System.out.print("Set min. Balance amount : ");  int minbal = sc.nextInt();  if(minbal>=0){  System.out.print("Initial Balance amount : ");  int bal = sc.nextInt();  if(bal>=0 && bal>=minbal){  System.out.print("Enter the Rate of interest : ");  double roi = sc.nextDouble();  bank b1 = new bank(bal,roi);  while(true)  {  b1.displaymenu();  int no = sc.nextInt();  switch(no)  {  case 1: System.out.print("Enter Amount to be deposited : ");  int n1 = sc.nextInt();  b1.makedeposit(n1);  break;    case 2: System.out.print("Enter Amount to be withdrawn : ");  int n = sc.nextInt();  if(bal-n>=minbal){ b1.withdrawamt(n); }  else{  System.out.println("Min. Balance condition not met!! A fee will be incurred in case of non-maintenance.");  }  break;    case 3: b1.showbalance();  break;    case 4: System.out.print("Enter number of years :");  int year = sc.nextInt();  double ans = b1.compoundint(year);  System.out.println("Your C.I. is : "+ans);  break;    default : System.out.println("Invalid input!!");    }  System.out.print("Do you wish to continue [ 1 to continue / 0 to exit ] : ");  int s2 = sc.nextInt();  if(s2==0) {  System.out.println("Thank you for banking with us!!");  break;  }  }  }  else{  System.out.println("Balance cannot be less than 0 / Balance cannot be less than min. Balance.");  }  }  else{  System.out.println("Min. Balance cannot be less than 0.");  }  }  }  class bank{  double bal,roi;  bank(){ }  bank(double bal) {  this.bal = bal;  }    bank(double bal, double roi) {  this.bal = bal;  this.roi = roi;  }  void makedeposit(double amt) {  bal+=amt;showbalance();}  void withdrawamt(double amt) {  if(amt<bal)  {  bal-=amt;  showbalance();  }  else{  System.out.println("Insufficient funds!!");  showbalance();  }  }  void showbalance() {  System.out.println("Current Balance : "+bal);  }  void displaymenu() {  System.out.print("1. Deposit\n2. Withdraw\n3. Check balance\n4. Calculate Compound Interest\nEnter your choice : ");  }  double compoundint(int years) {  double amt;  amt = bal\*Math.pow((1+roi/100),years);  return amt;  }  } |
| **RESULT:** | |
| **CONCLUSION:** | Studied the implementation of overloaded constructors. |