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| File:COMSATS new logo.jpg - Wikimedia Commons | **Subject:**  **Object Oriented Programming**  **submitted by:**  **Daoud hussain**  (Sp21-bcs-102)  **submitted to:**  **Mam Saneeha AAmir**  **date of submission:**  **March 27 , 2022** |

1. Employee Class:

public class Employee{

private String firstName;

private String lastName;

private Date birthDate;

private Date hireDate;

Employee(){

Date birthDate = new Date();

Date hireDate = new Date();

}

Employee(String f, String l, Date b, Date h){

firstName = f;

lastName = l;

birthDate = b;

hireDate = h;

}

public void setFirstName(String fn){

if(fn != ""){

firstName = fn;

}

}

public void setLastName(String ln){

if(ln != ""){

lastName = ln;

}

}

public void setBirthDate(Date bd){

birthDate = bd;

}

public void setHireDate(Date hd){

hireDate = hd;

}

public Date getHireDate()

{

return hireDate;

}

public Date getBirthDate()

{

return birthDate;

}

public void display(){

System.out.println(firstName);

System.out.println(lastName);

System.out.println(birthDate.getDay() + " "+ birthDate.getMonth() + " " + birthDate.getYear() + " ");

System.out.println(hireDate.getDay() + " "+ hireDate.getMonth() + " " + hireDate.getYear() + " ");

}

public boolean checkExperienced(int currentYear){

if(currentYear - hireDate.getYear() >= 5 ){

return true;

}

else{

return false;

}

}

}

Employee Date:

public class Date{

private int day;

private int month;

private int year;

Date(){

}

Date(int h, int s, int c){

day = h;

month = s;

year = c;

}

public int getDay(){

return day;

}

public int getMonth(){

return month;

}

public int getYear(){

return year;

}

}

Runner Employee:

public class Runner {

public static void main(String[] args) {

Employee e1 = new Employee();

Date d1 = new Date (6,5, 1987);

Date d2 = new Date (14,1,2014);

Employee e2 = new Employee("Daoud", "Hussain", d1 , d2);

Date d3 = new Date(5,2,1990);

e1.setHireDate(d3);

e1.setFirstName("Hussain");

e1.setLastName("Daoud");

e2.display();

e2.getHireDate();

e2.checkExperienced(2022);

}

}

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1. Employee2 Class:

public class Employee2{

private String firstName;

private String lastName;

private Date birthDate;

private Date hireDate;

private Job jobDetail;

Employee2(){

Date birthDate = new Date();

Date hireDate = new Date();

Job jobDetail = new Job();

}

Employee2(String f, String l, Date b, Date h, Job j){

firstName = f;

lastName = l;

birthDate = b;

hireDate = h;

jobDetail = j;

}

public void setFirstName(String fn){

if(fn != ""){

firstName = fn;

}

}

public void setLastName(String ln){

if(ln != ""){

lastName = ln;

}

}

public void setBirthDate(Date bd){

birthDate = bd;

}

public void setHireDate(Date hd){

hireDate = hd;

}

public void setJobDetail(Job hd){

jobDetail = hd;

}

public Job getJobDetail()

{

return jobDetail;

}

public Date getHireDate()

{

return hireDate;

}

public Date getBirthDate()

{

return birthDate;

}

public void display(){

System.out.println(firstName);

System.out.println(lastName);

System.out.println(birthDate.getDay() + " "+ birthDate.getMonth() + " " + birthDate.getYear() + " ");

System.out.println(hireDate.getDay() + " "+ hireDate.getMonth() + " " + hireDate.getYear() + " ");

System.out.println(jobDetail.getId() + " "+ jobDetail.getSalary() + " " + jobDetail.getDesignation() + " ");

}

public boolean checkExperienced(int currentYear){

if(currentYear - hireDate.getYear() >= 5 ){

return true;

}

else{

return false;

}

}

public boolean checkSalary(){

if(jobDetail.getSalary() > 50000){

return true;

}

return false;

}

}

Employee2 Job Class:

public class Job{

private int salary;

private String designation;

private int id;

Job(){

}

Job(int h, String s, int c){

salary = h;

designation = s;

id = c;

}

public int getSalary(){

return salary;

}

public int getId(){

return id;

}

public String getDesignation(){

return designation;

}

}

Employee2 Runner:

public class Runner {

public static void main(String[] args) {

Employee2 e1 = new Employee2();

Date d1 = new Date (6,5, 1987);

Date d2 = new Date (14,1,2014);

Job j1 = new Job (60000, "Admin", 10);

Employee2 e2 = new Employee2("Daoud", "Hussain", d1 , d2, j1);

Date d3 = new Date(5,2,1990);

e1.setHireDate(d3);

e1.setFirstName("Hussain");

e1.setLastName("Daoud");

e2.display();

e2.checkSalary();

}

}

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1. Person Class:

public class Person{

private String firstName;

private String lastName;

private Address homeAddress;

Person(){

homeAddress = new Address();

}

Person(String f, String l, Address ha){

firstName = f;

lastName = l;

homeAddress = ha;

}

public void setFirstName(String fn){

if(fn != ""){

firstName = fn;

}

}

public void setLastName(String ln){

if(ln != ""){

lastName = ln;

}

}

public void setHomeAddress(Address ha){

homeAddress = ha;

}

public String getFirstName(){

return firstName;

}

public String getlastName(){

return lastName;

}

public Address getHomeAddress(){

return homeAddress;

}

public void display(){

System.out.println(firstName);

System.out.println(lastName);

System.out.println(homeAddress.getHome() + " " + homeAddress.getStreet() + " " + homeAddress.getCity());

}

public boolean checkCity(String city){

if(homeAddress.getCity() == city){

return true;

}

return false;

}

}

Person Address:

public class Address{

private String home;

private String street;

private String city;

Address(){

}

Address(String h, String s, String c){

if(h!="" && s!="" && c!=""){

home = h;

street = s;

city = c;

}

}

public String getHome(){

return home;

}

public String getStreet(){

return street;

}

public String getCity(){

return city;

}

}

Person Runner:

public class Runner{

public static void main(String[] args) {

Person p1 = new Person();

Address a1 = new Address("Hostel City", "Five", "Islamabad");

Person p2 = new Person("Daoud", "Hussain", a1);

p2.display();

Person p3 = new Person();

p3.setFirstName("Hussain");

p3.setLastName("Daoud");

Address a2 = new Address("Comsats Uni", "Six", "Islamabad");

p3.setHomeAddress(a2);

p3.display();

p3. checkCity ("Islamabad");

}

}

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4. Book Class:

public class Book{

private String bookName;

private String publisher;

private Person author;

Book(){

//Default Argument constructor

}

Person p1 = new Person();

//Full Argument constructor

Book(String bn, String p, Person p1){

bookName = bn;

publisher = p;

author = p1;

}

public void setBookName(String bn){

if(bn != ""){

bookName = bn;

}

}

public void setPublisher(String ln){

if(ln != ""){

publisher = ln;

}

}

public String getBookName()

{

return bookName;

}

public String getPubliser()

{

return publisher;

}

public void setAuthor(Person a){

author = a;

}

public void getAuthor(Person a){

author = a;

}

public void display(){

System.out.println(bookName);

System.out.println(publisher);

System.out.println(author.getFirstName() + " "+ author.getlastName() + " - " + author.getHomeAddress().getHome() + " " + author.getHomeAddress().getStreet() + " " + author.getHomeAddress().getCity());

}

}

Book Runner:

public class Runner {

public static void main(String[] args) {

Book b1 = new Book();

Address a1 = new Address("Hostel city", "Five", "Islamabad");

Person p1 = new Person("Daoud", "Hussain",a1);

Book b2 = new Book("Getting Started with Java", "Rizwan Rashid", p1);

b2.display();

}

}

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Pizza Class:

Pizza Runner:

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