



اُنِيْوَرْسِيْٓتِيْ تِيْكْنُوْلُوْجِيْ مَآرَا
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TEKNOLOGI
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**Diploma in Computer Science and Mathematics
CSC186 (Object Oriented Programming)**

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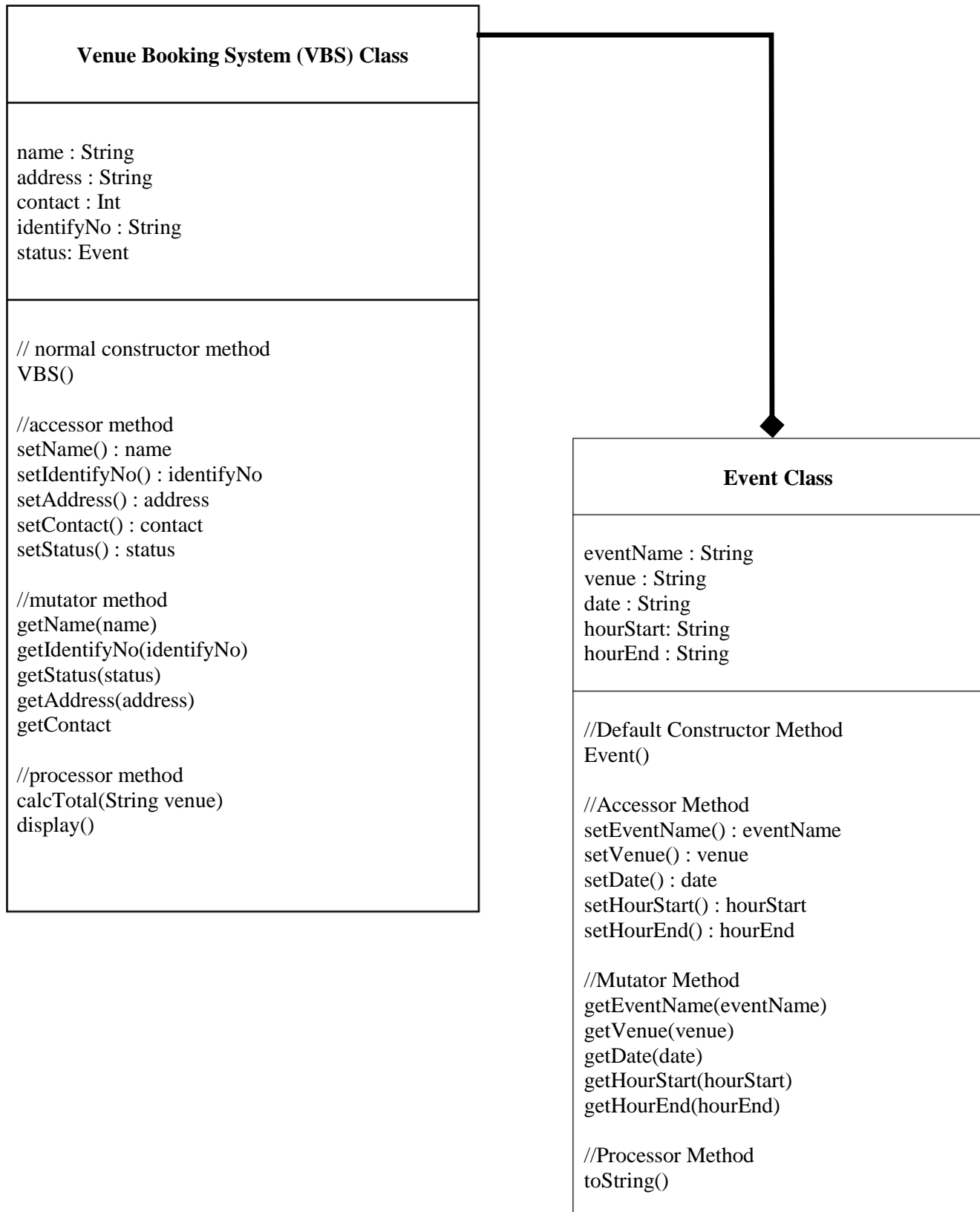
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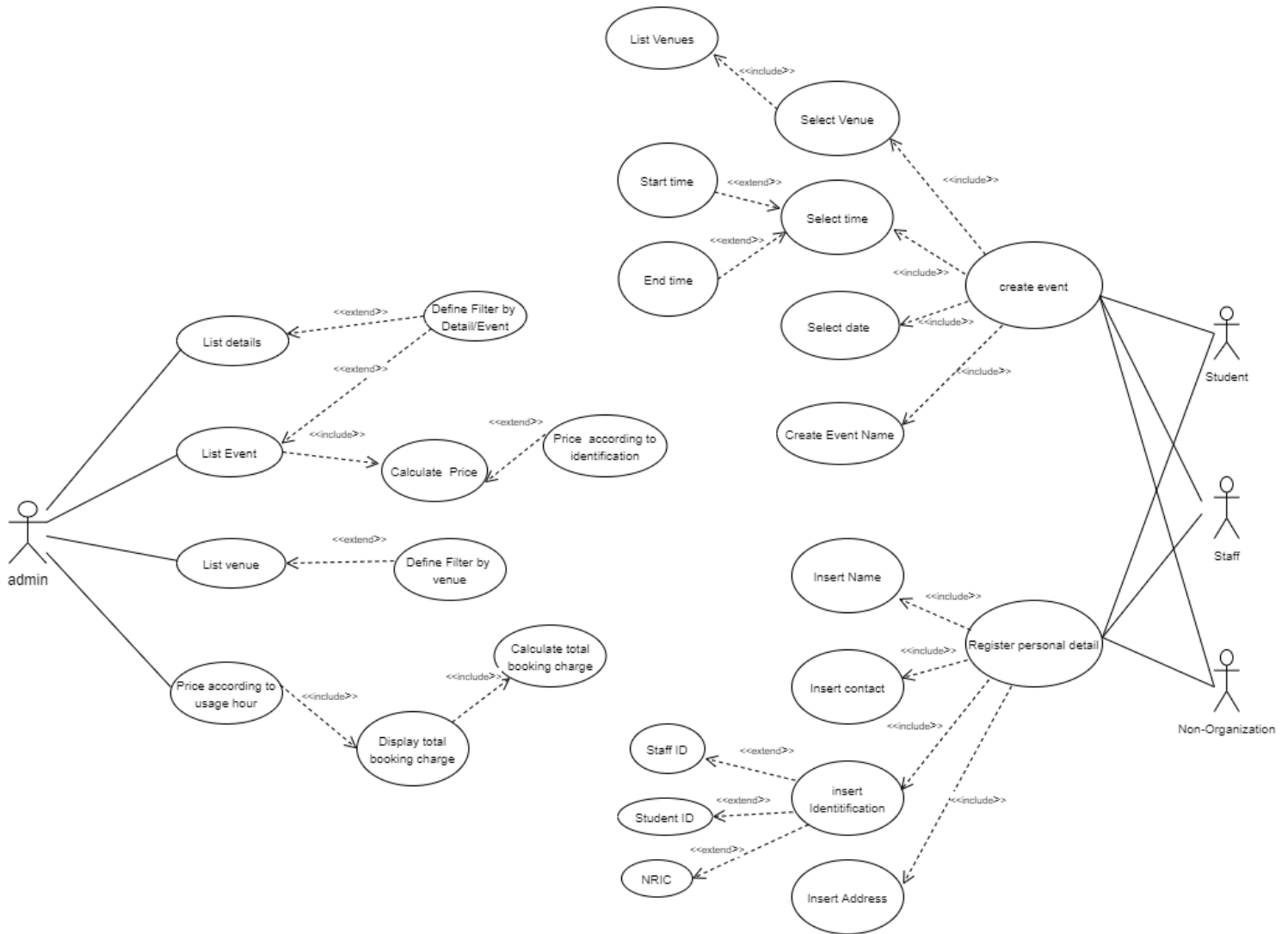
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1. UML Notation



2. Use Case Diagram

VENUE BOOKING SYSTEM



3. Coding

```
import java.util.Scanner;

class Event {

    private String eventName,venue,date,hourStart,hourEnd;

    public Event(String eventName, String venue, String date, String
hourStart, String hourEnd)
    {
        this.eventName=eventName;
        this.venue=venue;
        this.date=date;
        this.hourStart=hourStart;
        this.hourEnd=hourEnd;
    }

    //Accessor Method

    public void setDate(String date) {this.date = date;}

    public void setEventName(String eventName) {this.eventName =
eventName;}

    public void setHourEnd(String hourEnd) {this.hourEnd = hourEnd;}

    public void setHourStart(String hourStart) {this.hourStart =
hourStart;}

    public void setVenue(String venue) {this.venue = venue;}

    //Mutator Method

    public String getEventName(){return eventName;}

    public String getVenue(){return venue;}

    public String getDate(){return date;}

    public String getHourStart(){return hourStart;}
```

```

    public String getHourEnd(){return hourEnd;}

    public String toString(){
        return "Event Name : " + eventName + "\nDate : " + date + "\nEvent
Hour Start : " + hourStart + "\nEvent Hour End : " + hourEnd;

    }
}

class Person {
    private String name, address,venueName,identifyNo,duration;
    private int contact;
    private double bookingCharge;
    private Event status;

    Scanner num = new Scanner(System.in);

    public Person(String name, String address, int contact,String
identifyNo,Event status)
    {
        this.identifyNo = identifyNo;
        this.status = status;
        this.name=name;
        this.address=address;
        this.contact=contact;
    }

    //Accessor Method
    public void setName(String name) {this.name = name;}
    public void setAddress(String address) {this.address = address;}
    public void setContact(int contact) {this.contact = contact;}

```

```

    public void setStatus(Event status) {this.status = status;}

    public void setIdentifyNo(String identifyNo) {this.identifyNo =
identifyNo;}

    //Mutator Method

    public String getName(){return name;}
    public String getAddress(){return address;}
    public int getContact(){return contact;}
    public Event getStatus() {return status;}
    public String getIdentifyNo() {return identifyNo;}

    //Processor Method
    public double calcTotal(String venue) {
        double price = 0,minute = 0;
        int hour;
        String minuteStart = status.getHourStart().substring(2,4);
        String minuteEnd = status.getHourEnd().substring(2,4);
        String hourStart = status.getHourStart().substring(0,2);
        String hourEnd = status.getHourEnd().substring(0,2);

        hour = Integer.parseInt(hourEnd) - Integer.parseInt(hourStart);
        minute = Double.parseDouble(minuteEnd) -
Double.parseDouble(minuteStart);

        if(minute < 0){
            hour = hour - 1;
            minute *= -1;
        }

        duration = hour + " hour " + minute + " minute";
    }

```

```

minute /= 60;

if(identifyNo.length() <= 10){
    price = 0;

    if(venue.equalsIgnoreCase("dt")){
        venueName = "Dewan Titiwangsa";
    } else if((venue.equalsIgnoreCase("dk200"))){
        venueName = "Dewan Kuliah 200";
    } else if((venue.equalsIgnoreCase("dk300"))){
        venueName = "Dewan Kuliah 300";
    } else {
        System.out.println("An Error occured at
VBS.calcTotal()");
    }

} else {
    if(venue.equalsIgnoreCase("dt")){
        price = 300;
        venueName = "Dewan Titiwangsa";
    } else if((venue.equalsIgnoreCase("dk200"))){
        price = 150;
        venueName = "Dewan Kuliah 200";
    } else if((venue.equalsIgnoreCase("dk300"))){
        price = 100;
        venueName = "Dewan Kuliah 300";
    } else {
        System.out.println("An Error occured at
VBS.calcTotal()");
    }
}
}

```



```

        bookingCharge = (price*hour) + (price*minute);
        return bookingCharge;
    }

    public void display(){

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

        System.out.println("Person in-charge Details");
        System.out.println("Name : " + name);
        System.out.println("Identification Number :" + identifyNo);
        System.out.println("Address : " + address);
        System.out.println("Contact : +60" + contact);

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

        System.out.println("Event Details");
        System.out.println(status.toString());
        System.out.println("Event Venue : " + venueName);
        System.out.println("Duration : " + duration);
        System.out.println("Booking Charge : RM " + bookingCharge);

    }

}

class VBS{

    public static void main(String[] args){

        String    name,eventName,address,venue,date,identifyNo    =    "
",hourStart,hourEnd;

```

```

        boolean decision = true;

        int contact,count = 0,countDT = 0,countDK200 = 0,countDK300 =
0;

        int limit = 20;

        double sum = 0;


        Scanner text = new Scanner(System.in);
        Scanner num = new Scanner(System.in);
        Scanner choice = new Scanner(System.in);


        Person[] booking = new Person[limit];
        Event[] details = new Event[limit];


        while((decision != false) && (count != limit)){

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

                System.out.println("Person in-charge Detail");
                System.out.println("Person's Name : ");
                name = text.nextLine();
                System.out.println("Person's Address : ");
                address = text.nextLine();
                System.out.println("Person's Contact (Numbers Only) : ");
                contact = num.nextInt();

                System.out.println("Person's          Identification          [Staff
ID/Student ID/IC Number]: ");
                identifyNo= text.nextLine();


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

                System.out.println("Event Details");

```

```

        System.out.println("Event Name : ");
        eventName = text.nextLine();
        System.out.println("Event Venue : ");
        venue = text.nextLine();
        System.out.println("Event Date : ");
        date = text.nextLine();
        System.out.println("Event Hour Start : ");
        hourStart = text.nextLine();
        System.out.println("Event Hour End : ");
        hourEnd = text.nextLine();

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

        details[count] = new
Event(eventName,venue,date,hourStart,hourEnd);

        booking[count] = new
Person(name,address,contact,identifyNo,details[count]); //Input All the
Details

        booking[count].calcTotal(venue);
        sum += booking[count].calcTotal(venue);

        if(details[count].getVenue().equalsIgnoreCase("dt")){
            countDT++;
        } else
if(details[count].getVenue().equalsIgnoreCase("dk200")){
            countDK200++;
        } else
if(details[count].getVenue().equalsIgnoreCase("dk300")){
            countDK300++;
        }

        System.out.println("Students and Staff won't be charged!");

```

```

        booking[count].display();

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

        count++;

        System.out.println("Do you want to go again? [True/False]");
        decision = choice.nextBoolean();

    }

        System.out.println("You reach the maximum storage of " + count
+ " storage");

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

        System.out.println("Total Venue of Dewan Titiwangsa : " +
countDT);

        System.out.println("Total Venue of Dewan Kuliah 200 : " +
countDK200);

        System.out.println("Total Venue of Dewan Kuliah 300 : " +
countDK300);

        System.out.println("Total Booking Charge : RM " + sum);

    }
}

```