03

Advance Javascript Exercise

11. Define a class called FruitJuice with the following description:

Instance variables/data members:

int product_code	–	stores the product code number
String flavour	–	stores the flavour of the juice.(orange, apple, etc.)
String pack_type	–	stores the type of packaging (tetra-pack, bottle, etc.)
int pack_size	–	stores package size (200ml, 400ml, etc.)
int product_price	–	stores the price of the product

Member Methods:

void input()	–	to input and store the product code, flavour, pack type, pack size and product price
void discount()	–	to reduce the product price by 10
void display()	–	to display the product code, flavour, pack type, pack size and product price

Write the main method to create an object of the class and call the above member methods.

Ans :

```
class FruitJiuce{
    pCode=1234;
    pType="xlx";
    pSize=123;
    pPrice=1234;
    flavour="choco";
     input(){
        let a=prompt("Enter the Product Code  : ");
        this.pCode=parseInt(a);
        this.flavour=prompt("Enter the Flavour (Orange/Apple,etc): ");
        this.pType=prompt("Enter the Pack Type (TetraPack/Bottle,etc) : ");
        let b=prompt("Enter the Pack Size (200ml/500ml/1L) : ");
        this.pSize=parseInt(b);
        let c=prompt("Enter the Product Price  : ");
        this.pPrice=parseInt(c);
    }

    discount(){
        this.pPrice-=10;
    }
```

```
    display(){
        document.write("Product Code : "+this.pCode+"<br>");
        document.write("Flavour : "+this.flavour+"<br>");
        document.write("Pack Type : "+this.pType+"<br>");
        document.write("Pack Size : "+this.pSize+"<br>");
        document.write("Product Price : "+this.pPrice+"<br>");
        document.write("Discount : "+this.pPrice+"<br>");
    }

}
let fruitJuice = new FruitJiuce();
fruitJuice.input();
fruitJuice.discount();
fruitJuice.display();
```

12. Define a class Book with the following specifications.

Instance variables/data members:

BOOK_NO	:	int type to store the book number
BOOK_TITLE	:	String type to store the title of the book
PRICE	:	float type to store the price per copy

Member Methods:

TOTAL_COST()	:	to calculate the total cost for N number of copies, where N is passed to the function as argument
INPUT()	:	to read BOO_NO, BOOK_TITLE, PRICE
PURCHASE()	:	to ask the user to input the number of copies to be purchased. It

invokes TOTAL_COST() and prints the total cost to be paid by the user. Write the main method to create an object of the class and call the above member methods.

```
class Book {
    BOOK_NO; book_title;
    PRICE;
    INPUT() {
        this.BOOK_NO = prompt('Enter the book no.');
        this.book_title = prompt('Enter the book title:');
        this.PRICE = parseInt(prompt('Enter the this.PRICE:'));
    }
    TOTAL_COST(n) {
        let tcost;
        tcost = this.PRICE * this.n;
        document.write('Total Cost:' + tcost);
    }
    PURCHASE() {
        this.n = parseInt(prompt('Enter the no. of copies to purchase:'));
        this.TOTAL_COST(this.n);
    }

}
let ob = new Book();
ob.INPUT();
ob.PURCHASE();
```

13. Define a class Flight with the following description:

Instance variables/data members:

fl_no	:	to store the flight number of int type
dest	:	to store the destination of the flight of String type
dist	:	to store the distance of the flight of float type
fuel	:	to store the fuel required by the flight of float type

Member Methods:

i calfuel() : to calculate the value of fuel as per the following criteria Distance Fuel
<=1000 500
>1000 and <=2000 1100
>2000 2200

ii feedinfo() to allow user to enter values for Flight Number, Destination, Distance and call function calfuel() to calculate the quantity of Fuel.

iii showinfo() to allow user to view the content of all the data members.

Write the main method to create an object of the class and call the above member methods.

Ans :

```
class Flight{
    fl_no;
    dest;
    dist;fuel;

    calfuel() {
   if(this.dist<=1000)
   this.fuel=500;
   else if(this.dist>1000 && this.dist<=2000)
   this.fuel=1100;
   else
   this.fuel=2200;
   }

    feedinfo()
   {
   this.fl_no=prompt("Enter the flight no :");
   this.dest=prompt("Enter the destination :");
   this.dist=parseInt(prompt("Enter the distance (in Km):"));
   this.calfuel();
   }
```

```
    showinfo()
   {
   document.write("Flight no:"+this.fl_no+"<br>");
   document.write("Destination:"+this.dest+"<br>");
   document.write("Distance:"+this.dist+"<br>");
   document.write("Fuel:"+this.fuel+"<br>");
   }

  }

   let flight=new Flight();
   flight.feedinfo();
   flight.showinfo();
```

14. Define a class hotel in with the following description

Instance variables/data members:

Rno	:	Room No of int type
Name	:	Customer name of String type
Tarrif	:	stores per day charges of float type
NOD	:	no of days integer

Member Methods:

CALC()	:	to calculate and return Amount as NOD*Tarrif and if the value of NOD*Tarrif is more than 10000 then as 1.05*NOD*Tarrif
Checkin()	:	to enter the Rno, Name, Tarrif and NOD
Checkout()	:	to display Rno, Name, Tarrif, NOD and Amount by calling CALC()

Write the main method to create an object of the class and call the above member methods.

Ans :

```
class hotel
{
 Rno;
 NOD;
 Name;
 Tarrif;
 CALC()
{
 let Amount;
Amount=this.NOD*this.Tarrif;
if(Amount>10000)
Amount=Amount*1.05;
return Amount;
}
```

```
 Checkin()
{

this.Rno=parseInt(prompt("Enter the Room no:"));

this.Name=prompt("Enter the Name:");
this.Tarrif=parseInt(prompt("Enter the Tarrif:"));
this.NOD=parseInt(prompt("Enter the No. of Days:"));
}
 Checkout()
{
document.write("Room no:"+this.Rno+"<br>");
document.write("Name:"+this.Name+"<br>");
document.write("Tarrif:"+this.Tarrif+"<br>");
document.write("No. of days:"+this.NOD+"<br>");
document.write("Amount:"+this.CALC());
}
}
let h =new hotel();
h.Checkin();
h.Checkout();
```

15. Define a class Telephone having the following description:

Instance Variables / Data Members:

int prv, pre	-	to store the previous and present meter reading
int call	-	to store the calls made (i.e. pre – prv)
String name	-	to store name of the customer
double amt	-	to store the amount
double total	-	to store the total amount to be paid

Member Methods:

void input ( )	-	to input the previous reading, present reading and name of the customer
void cal ( )	-	to calculate the amount and total amount to be paid
void display ( )	-	to display the name of the customer, calls made, amount and total amount to be paid in the following format:

Name	**Calls Made**	**Amount**	**Total Amount**
.....	.....	.....	.....

Write a program to compute the monthly bill to be paid according to the given conditions:

Calls made	Rate
Upto 100 calls	No Charge
For the next 100 calls	90 paise per call
For the next 200 calls	80 paise per call
More than 400 calls	70 paise per call

However every customer has to pay ₹ 180 per month as monthly rent for availing the service.

Ans :

```
class Telephone
{
 prv;
 pre;
 call;
 name;
 amt;
 total;
 input()
{
this.prv=parseInt(prompt("Enter the previous meter reading:"));
this.pre=parseInt(prompt("Enter the present meter reading:"));
this.name=prompt("Enter the name:");
}
 cal()
{
this.call=this.pre-this.prv;
if(this.call<=100)
this.amt=0;
else if(this.call>100 && this.call<=200)
this.amt=0*100+(this.call-100)*0.90;
else if(this.call>200 && this.call<=400)
this.amt=0*100+100*0.90+(this.call-200)*0.80;
else
this.amt=0*100+100*0.90+200*0.80+(this.call-400)*0.70;
this.total=this.amt+180;
}


 display()
{
document.write("Name : "+this.name+"<br>"+"Calls Made : "+this.call
+"<br>"+"Amount : "+this.amt+"<br>"+"Total Amount : "+this.total);
}
}
let telephone =new Telephone();
telephone.input();
telephone.cal();
telephone.display();
```

16. Define a class named movieMagic with the following description:

Instance variables/data members:

int year	–	to store the year of release of a movie
String title	–	to store the title of the movie.
float rating	–	to store the popularity rating of the movie.

(minimum rating = 0.0 and maximum rating = 5.0)

Member Methods:

(i) void accept()	-	To input and store year, title and rating.
(ii) void display()	-	To display the title of a movie and a message based on the rating as per the table below.

Rating	Message to be displayed
0.0 to 2.0	Flop
2.1 to 3.4	Semi-hit
3.5 to 4.5	Hit
4.6 to 5.0	Super Hit

Write a main method to create an object of the class and call the above member methods.

17. Define a class ParkingLot with the following description:

Instance variables/data members:

int vno	–	To store the vehicle number
int hours	–	To store the number of hours the vehicle is parked in the parking lot
double bill	–	To store the bill amount

Member methods:

void input()	–	To input and store vno and hours
void calculate()	–	To compute the parking charge at the rate of ` 3 for the first hour or part thereof, and ` 1.50 for each additional hour or part thereof.
void display()	–	To display the detail

Write a main method to create an object of the class and call the above methods

18. Define a class named BookFair with the following description:

Instance variables/Data members:

String Bname – stores the name of the book.

double price – stores the price of the book.

Member Methods:

(i) void Input() – To input and store the name and the price of the book.

(ii) void calculate() – To calculate the price after discount. Discount is calculated based on the following criteria:

PRICE	**DISCOUNT**
Less than or equal to ₹ 1000	2% of price
More than ₹ 1000 and less than or equal or ₹ 3000	10% of price
More than ₹ 3000	15% of price

(iii) void display() – To display the name and price of the book after discount.

Write a main method to create an object of the class and call the above member methods.

19. Define a class Electric Bill with the following specifications:

class: ElectricBill

Instance Variable/ data member:

String n – to store the name of the customer

int units – to store the number of units consumed

double bill – to store the amount to paid

Member methods:

• void accept() – to accept the name of the customer and number of units consumed

• void calculate() – to calculate the bill as per the following tariff :

Number of units	–	Rate per unit
First 100 units	–	₹ 2.00
Next 200 units	–	₹ 3.00
Above 300 units	–	₹ 5.00

A surcharge of 2.5% charged if the number of units consumed is above 300 units.

• void print() – To print the details as follows :

Name of the customer .....

Number of units consumed .....

Bill amount .....

Write a main method to create an object of the class and call the above member methods.

20. Design a class RailwayTicket with the following description:

Instance variables/data members:

String name : To store the name of the customer
String coach : To store the type of coach customer wants to travel
long mobno : To store customer's mobile number

int amt : To store basic amount of ticket
int totalamt : To store the amount to be paid after updating the original amount

Member methods:

- void accept() - To take input for name, coach, mobile number and amount
- void update() - To update the amount as per the coach selected

(extra amount to be added in the amount as follows)

Type of Coaches	Amount
First_AC	700
Second_AC	500
Third_AC	250
Sleeper	None

- void display() - To display all details of a customer such as name, coach, total amount and mobile number.

Write a main method to create an object of the class and call the above member methods.