**1.**

namespace Library\_App

{

class Book

{

public string ID;

public string Name;

public string Category;

public string Availability;

public Book(string I, string N, string C, string Av)

{

ID = I;

Name = N;

Category = C;

Availability = Av;

}

public void checkBook(Student ob)

{

if (Availability == "Yes")

{

Console.WriteLine("Student ID: " + ob.ID + "\n" + "Student Name: " + ob.Name + "\n" + "Book Name: " + Name);

}

else

{

Console.WriteLine("No books are available!");

}

}

}

class Student

{

public string ID;

public string Name;

public Student(string I, string N)

{

ID = I;

Name = N;

}

}

class Program

{

static void Main(string[] args)

{

Book ob = new Book("16", "Programming-II", "SWE", "Yes");

Student ob1 = new Student("17", "Rony");

ob.checkBook(ob1);

Console.ReadLine();

}

}

}

**2.**

namespace Agora\_App

{

class Manager

{

public string ProductId;

public string Name;

public double Price;

public bool Availability;

public Manager(string I, string N, double P, bool A)

{

ProductId = I;

Name = N;

Price = P;

Availability = A;

}

public void StoreProduct()

{

Console.WriteLine("Availabil product are: \nProductId: {0} \nName: {1} \nPrice: {2}\n\n", ProductId, Name, Price);

}

}

class Sallperson

{

public string SallPersonId;

public string Name;

public double Piece;

public Sallperson(string I, string N, double P)

{

SallPersonId = I;

Name = N;

Piece = P;

}

public void CheckAvailability(Manager ob, Customer ob2)

{

if (ob.Availability == true)

{

Console.WriteLine("--receipt--\n\nSallPersonId: {0} \nProductId: {1} \nCustomer Name: {2}", SallPersonId, ob.ProductId, ob2.Name);

}

else

{

Console.WriteLine("No availabil product");

}

}

public void CalculateBill(Manager ob)

{

double total = ob.Price \* Piece;

if (ob.Price < total)

{

Console.WriteLine("-------------------\nTotal\_Bill: {0}/=", total);

}

}

}

class Customer

{

public string CustomerId;

public string Name;

public Customer(string I, string N)

{

CustomerId = I;

Name = N;

}

}

class Program

{

static void Main(string[] args)

{

Manager ob = new Manager("17", "Biskit", 24, true);

Sallperson ob1 = new Sallperson("161", "Jahid", 2);

Customer ob2 = new Customer("172", "Abir");

ob.StoreProduct();

ob1.CheckAvailability(ob, ob2);

ob1.CalculateBill(ob);

Console.ReadLine();

}

}

}

**3.**

namespace DIU\_App

{

class Admin

{

public string AdminId;

public string Name;

public Admin(string I, string N)

{

AdminId = I;

Name = N;

}

public void ApprovesSalary(Teacher ob)

{

if(ob.Marks == "yes")

{

Console.WriteLine("Your salary: {0}", ob.Salary);

}

else

{

Console.WriteLine("Sorry your salary not approve!");

}

}

}

class Course

{

public string CouurseId;

public string Name;

public string Type;

public double Marks;

public Course(string I, string N, string T, double M)

{

CouurseId = I;

Name = N;

Type = T;

Marks = M;

}

}

class Teacher

{

public string TeacherId;

public string Name;

public double Salary;

public string Marks;

public Teacher(string I, string N, double S, string M)

{

TeacherId = I;

Name = N;

Salary = S;

Marks = M;

}

}

class Student

{

public string StudentId;

public string Name;

public string Semester;

public Student(string I, string N, string S)

{

StudentId = I;

Name = N;

Semester = S;

}

}

class Program

{

static void Main(string[] args)

{

Admin ob = new Admin("Rafa", "197");

Course ob1 = new Course("SWE-233", "OOP", "Lab", 25);

Teacher ob2 = new Teacher("359", "Fazla Elahe", 50000, "yes");

Student ob3 = new Student("1542", "Raihan", "5th");

ob.ApprovesSalary(ob2);

Console.ReadLine();

}

}

}

**4.**

namespace Hostel\_App

{

class Manager

{

public string ManagerId;

public string Name;

public Manager(string I, string N)

{

ManagerId = I;

Name = N;

}

public void CheckRoom(Room ob, Student ob2)

{

if(ob.Availability == "yes")

{

Console.WriteLine("Room available please enter student information-\n");

Console.WriteLine("Enter student Id: ");

ob2.StudentId = Console.ReadLine();

Console.WriteLine("Enter student Name: ");

ob2.Name = Console.ReadLine();

Console.WriteLine("Enter room Id: ");

ob2.RoomId = Console.ReadLine();

Console.WriteLine("Enter room Name: ");

ob2.RoomName = Console.ReadLine();

Console.WriteLine("Enter room type(big/small): ");

ob2.Type = Console.ReadLine();

Console.WriteLine("Enter service name(Food/Game) & type(full/half): ");

ob2.Service = Console.ReadLine();

}

else

{

Console.WriteLine("Room not available");

}

}

public void CalculateTotalBill(Room ob, Student ob1)

{

if(ob1.Service == "Food half")

{

int sum = ob.Price + 1000;

Console.WriteLine("{0} monthly total bill: {1}", ob1.Name, sum);

}

else if(ob1.Service == "Food full")

{

int sum = ob.Price + 2000;

Console.WriteLine("{0} monthly total bill: {1}", ob1.Name, sum);

}

else if(ob1.Service == "Game half")

{

int sum = ob.Price + 400;

Console.WriteLine("{0} monthly total bill: {1}", ob1.Name, sum);

}

else

{

int sum = ob.Price + 750;

Console.WriteLine("{0} monthly total bill: {1}", ob1.Name, sum);

}

}

}

class Room

{

public string RoomId;

public string Name;

public string Type;

public string Availability;

public int Price;

public Room(string I, string N, string T, string A, int P)

{

RoomId = I;

Name = N;

Type = T;

Availability = A;

Price = P;

}

}

class Student

{

public string StudentId;

public string Name;

public string RoomId;

public string RoomName;

public string Type;

public string Service;

public Student(string I, string N, string RI, string RN, string T, string S)

{

StudentId = I;

Name = N;

RoomId = RI;

RoomName = RN;

Type = T;

Service = S;

}

}

class Program

{

static void Main(string[] args)

{

Manager ob = new Manager("17", "Ridoy");

Room ob1 = new Room("103", "Bokul", "big", "no", 500);

Student ob2 = new Student("161", "Mr Alam", "103", "Bokul", "small", "Food half");

ob.CheckRoom(ob1, ob2);

ob.CalculateTotalBill(ob1, ob2);

Console.ReadLine();

}

}

}

**5.**

namespace Hospital\_App

{

class Authority

{

public string AuthorityId;

public string Name;

public Authority(string I, string N)

{

AuthorityId = I;

Name = N;

}

public void CalculateDrMonthlysalary(Doctor ob, Patient ob1)

{

if(ob.NoPatient >= 15)

{

double M = (ob1.AppointmentFee \* 50) / 100;

double T = M \* 30;

Console.WriteLine("{0} monthly salary: {1}/=", ob.Name, T);

}

else

{

double M = (ob1.AppointmentFee \* 30) / 100;

double T = M \* 30;

Console.WriteLine("{0} monthly salary: {1}/=", ob.Name, T);

}

}

}

class Doctor

{

public string DoctorId;

public string Name;

public string Experience;

public string RoomNo;

public int NoPatient;

public Doctor(string I, string N, string E, string R, int NP)

{

DoctorId = I;

Name = N;

Experience = E;

RoomNo = R;

NoPatient = NP;

}

}

class Patient

{

public string PatientId;

public string Name;

public int Age;

public string Dr\_Name;

public double AppointmentFee;

public Patient(string I, string N, int A, string DN, double F)

{

PatientId = I;

Name = N;

Age = A;

Dr\_Name = DN;

AppointmentFee = F;

}

}

class Program

{

static void Main(string[] args)

{

Authority ob = new Authority("196", "Raza");

Doctor ob1 = new Doctor("652", "Mr. Alam", "15years", "502", 15);

Patient ob2 = new Patient("151", "Mr. Ali", 45, "Mr.Alam", 1000);

ob.CalculateDrMonthlysalary(ob1, ob2);

Console.ReadLine();

}

}

}