1- Project Title

kaizen travel office

2- Project UML

travelAgency

City
- Country: string
- CityName: string
- CountryCod: string
- CityCode: string
- # numberOfSeats : int [ ] [ ]
- # lettersOfSeats : char [ ]
- +City():void
- +City(country: String, cityName: String, countryCod: String, airport: String): void
- +setCountry(country:string):void
- +getCountry():string
- +setCityName(city:string):void
- +getCityName():string
- +setCountryCode(countryCode:string):void
- +getCountryCode():string
- +setCityCode(cityCode:string):void
- +getCityCode():string

Customer
- -FullName:String
- -phone:int
- -Email:String
- -gender:String
- -passport:int
- +customer()
- +customerfullname:(String:Phone:int,Email:string)
- +customerfullname:(String,phone:int,Email:String,gender:String
- +customer(fullName:String,phone:int
- +add():void
- +getfullname():String
- +getPhone():int
- +getEmail():String
- +Setfullname(fullname:String):void
- +Setphone(phone:int):void
- +SetEmail(Email:String):void
- +SetGender(gender:String):void
- +Setpassport(passportno:int):void

Reservation
- -customer: Customer
- -flight: Flight
- -SeatType: string
- -SeatNo: string
- +printticket():void
- + getCustomer(): Customer
- + setCustomer(Customer: customer): void
- + getFlight():Flight
- + setFlight(flight: Flight): void
- +getSeatType():string
- + setSeatType(SeatType: String): void
- + getSeatNo(): String
- + setSeatNo(SeatNo: String): void

Flight
- -flightNumber: string
- -flightTime: string
- -IATA_Code: string
- -duration_time: string
- -capacity: int
- -numberOfSeatLeft: int
- flightDate: LocalDate
- departure: Madinah
- destination: City
- + Flight():void
- +Flight(flightNumber: String, flightTime: String, IATACode: String, durationTime: String, capacity: int, flightDate: LocalD..., destination: City): void
- + getDestinatio..?:City
- + setDestination(destina..:m: City):void
- + setFlightNumber(flightNumber : string):void
- + setDeparture(departure: Madinah):void
- + setFlightDate(flightDate : LocalDate) :void
- + setFlightTime(flightTime: String):void
- + setIATACode(IATACode: String): void
- + setDurationTime(durationTime: String): void
- + getFlightNumber():String
- + getDeparture(): Madinah
- + getFlightDate(): LocalDate
- + getIATACode(): String
- + getDurationTime():String
- + bookSeet():void
- + chooseAirport():void
- + chooseFlightDate(year: int, month: int, day :int): void
- + toString():String

Madinah
- + Madinah ():void
- + toString(): String
- + bookSeat ( ): void

Muscat
- + Muscat ():void
- + toString(): String
- + bookSeat ( ): void
- + getLetterOfSeat(seatNumber: int): void

kualaLumpur
- secondAirport: String
- + kualaLumpur():void
- + toString(): String
- + toString (secondAirport: String) : String
- + bookSeat): void
- + getLetterOfSeat(seatNumber: int): void

Alexandria
- secondAirport: String
- + Alexandria():void
- + toString(): String
- + toString (secondAirport: String) : String
- + bookSeat ( ): void
- + getLetterOfSeat(seatNumber: int): void

Booking
- Customer:customer
- +nationality:int
- +NationalNumber:int
- -Visa:int
- -bookDate:LocalDate
- -FlightDate:Date
- -totalprice:double
- -bookType:String
- +Booking()
- +IsVisaValid(visa:int)boolean
- +Bookinginfo():void
- +PrintTicket():void
- +addBookTicket():void
- +getVisa():nt
- +getflightDate():Date
- +calculateTotalprice():double
- +getBookType():String
- +getTotalprice():double
- +getBookDate():localDate
- +SetBookType(booktype:String):void
- +SetTotalprice(totalprice:double):void
- +SetFlightDate(flightdate:Date):void
- +Setbook():void

emplyment
- +name:String
- +PhoneNmber:int
- +address:String
- +email:String
- +age:int
- +academic_qualifaction:String
- +languages:String
- +employee():void

BagWeight
- + Backbag: int
- + handbag: int
- + ChildBag: int
- + BagWeight(Backbag: int: , handbag: int, ChildBag: int)
- + getBackbag(): int
- + setBackbag(Backbag: int): void
- + getHandbag(): int
- + setHandbag(handbag: int): void
- + getChildBag(): int
- + setChildBag(ChildBag: int): void
- + businessClass ( ): String
- + economicClass ( ): String
- + firstClass ( ): String

<<Abstract>> BestService
- +abstract printBest(x:int):void
- +getcurrencyExchangeFork(x:int):void
- +getcurrencyExchangeform(x:int):void
- +getcurrencyExchangefora(x:int):void

BestPlaces
- -description: string
- -dKulaLumpur: string
- -dAlexandria: string
- -dMuscat: string
- + BestPlaces ():void
- + BestPlaces (): void
- + setCustomer(Customer: customer): void
- + getFlight():Flight
- + setFlight(flight: Flight): void
- +getSeatType():string
- + setSeatType(SeatType: String): void
- + getSeatNo(): String
- + setSeatNo(SeatNo: String): void

Food
- - ktype :String
- -mtype :String
- -atype:String
- +setktype(ktype:String):void
- +setntype(ntype:string) :void
- +setatype(atype:string):void
- +getktype():string
- +getntype():string
- +getatype():string
- +printBest(s:int):void
- +toString():String

BestPrice
- +Bestprice()
- +getcurrencyExchangeFork(x:double):void
- +getcurrencyExchangeform(x:double):void
- +getcurrencyExchangefora(x:double):void
- +printBest(x:int):void
- +discount(x:double,code:String):double

Hotels
- No:int
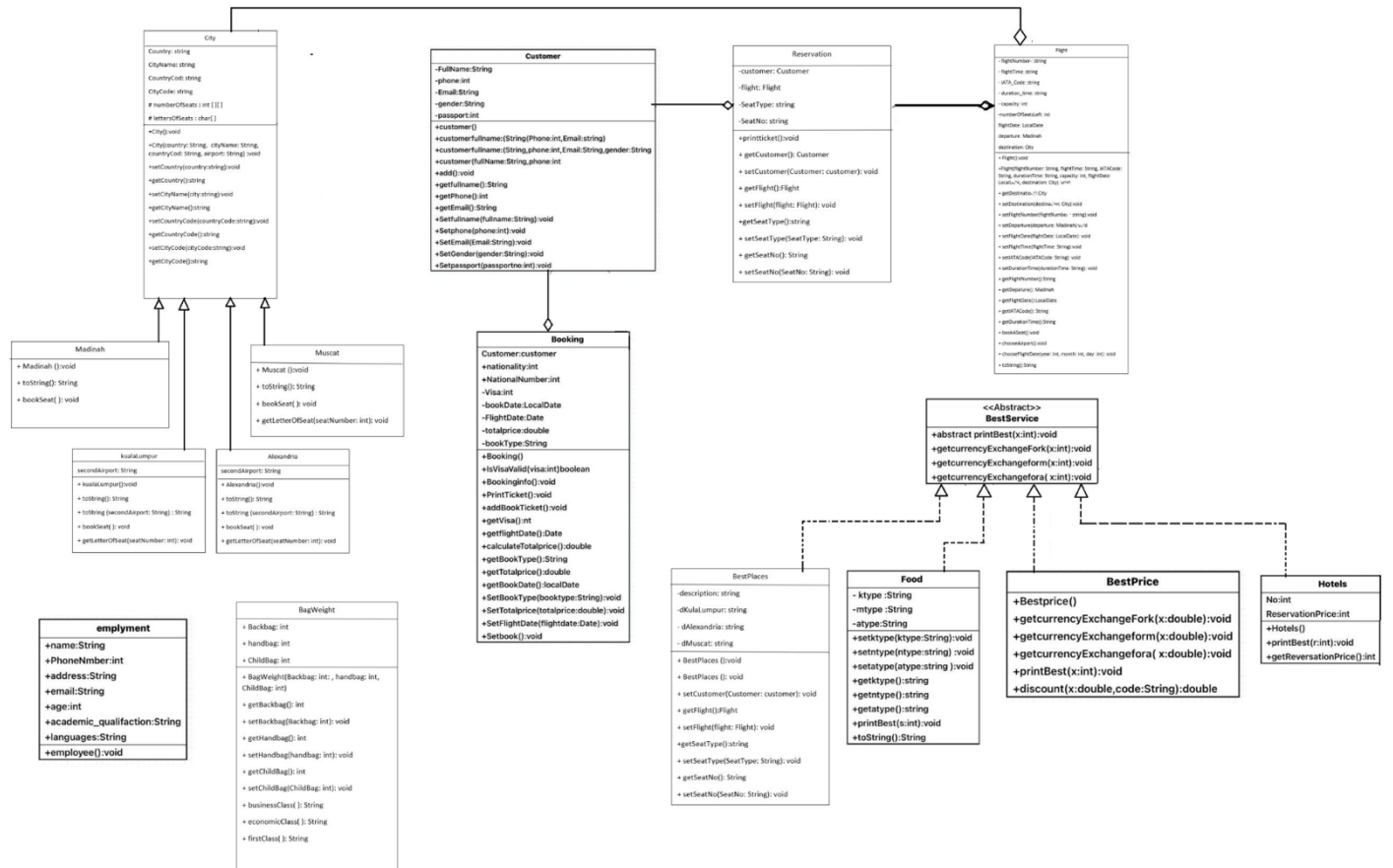- ReservationPrice:int
- +Hotels()
- +printBest(r:int):void
- +getReversationPrice():int

3- Project Functionalities or Tasks

The method based on the program:

-method book seat for class Alexandria, Muscat, kula lumpur this method shows the seats available on the plane and shows the grades for it, business class, economy class, first class, which allows the user to choose the seat and class he prefers and print it

-method print best for class hotel, food , best place this method print the best places ,hotels and the best popular food in Muscat, Kula lumpur, Alexandria

-method get currency exchange for kula lumpur, Muscat , Alexandria This method calculates the currency difference and converts the riyal into Egyptian pounds, Omani riyals, or Malaysian ringgit, according to the user's choice.

-method business , first , economic ,class methodes Check the total weight of the bags for the user. If the weight becomes more than the allowed weight, the user will have to pay an additional cost of 132 riyals for the excess weight.

-method is visa valid to check whether the visa is valid or not

-method add This method with a tray and a catch prints a message to the user so that he enters his name, phone number, country code, passport number and email, and if there is any error, the tray error is passed to the catch and a message is printed for him

-method book a seat Method checks the number of seats, and if the number of seats runs out, a message "There are no seats left" appears.

- method choose airport It allows the user to choose the airport shown to him
-method choose flight date It allows the user to choose the time, year and day that suits him

-method print a ticket

-method employee this method employ the people who want to join us so that he provides us with the following information: his name, his email, his academic qualifications, his language, his phone number, and his address

-method booking info this method makes the user determine whether he is a Saudi national or a resident. If he is a Saudi national, he enters the national identity number. If he is not a Saudi, he enters the residence number, while verifying its date, is it valid or not.

4- Extra Work

One of the tasks that we have done is to search for these cities in their culture and popular food, the best candidate places for tourists, the best distinguished hotels and currency, and we printed an airline ticket and a realistic booklet to show pictures of these cities with their places and food, and we also searched for aesthetic interfaces that appear to the user and put them in our program, which increases the aesthetics of our program

5- The distribution of the work

Member	Task(s)
1- khadija	Class best service, class food, class best place, class customer, class hotel, report, Airline ticket design and booklet design for the best places and traditional foods , UML
2- Teif	Presentation, bag weighing class, UML ,Passport distributions, class food, class best place
3- Amal	Class test, class reservation, class booking, class best price, Passport distributions and booklet of the best places and traditional food, UML
4- Asayel	Class test class, class reservation, class booking, class best price, Passport distributions and booklet of the best places and traditional food, UML design, class employment
5- Lujain	Class City, class Medina, class Cairo, class Muscat, UML class kula Lumpur, class flight ,Bracelets distribution

6- What we learnt

What we learned in the project is how to apply the concept of Object Oriented Programming so that the codes are reusable. One of the advantages that we learned is linking the classes and how to apply the concepts of this course and working as a team. We felt that working as a team made it easier for us to work on the project, as we divided the tasks and exchanged ideas and information between us. We are satisfied with what we have accomplished and presented in the project, and we feel that in the future we are able to develop, achieve and work on large projects.

7- Project difficulties

One of the problems we encountered in this project was the lack of time, as well as the sharing of codes and linking them in the test class

8- Project Declaration

We confirm that the work of this project was solely undertaken by us and that no help was provided from other sources as those allowed. As well as we confirm that we are completely aware of the violation consequences of the academic integrity.

khadija Ali Alajmi
Lujain Midhat Alhebshi
Amal Abid Saeed
Asayel Mohammed Qaid
Teif Abdulrahman Alhrbi