

Topic : Tourism & Travel Management System

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We declare that this is our own work, and this Assignment does not incorporate without acknowledgment any material previously submitted by anyone else in SLIIT or any other university/Institute. And we declare that each one of us equally contributed to the completion of this Assignment.

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# Requirement Analysis

* The customer first registers as a local customer or foreign customer with the system.
* Unregistered customers must enter information such as name, email and other information in order to gain access to the website.
* In order to register on the web site unregistered local customer must submit their name, country, e-mail, gender and date of birth.
* In order to register on the web site an unregistered foreign customer must submit their name, country, email, date of birth, age, experience and gender.
* Registered customer can log in to the system.
* Local customer must be able to use the website to view or obtain information on nations, hotels, visitors’ attractions and available foreign customer.
* Promotions must be available to Local customers.
* Local customer must be able to review establishments before making a reservation.
* Local customer should be able to compare package prices and foreign customers.
* Package prices and foreign customer must be available to local customers.
* Local customer must be able to pay services on the website using a payment method.
* Foreign customer must be able to access their reservations through the web site.
* Foreign customer must have the ability to accept or reject reservations.
* The payment of foreign customers must be possible.
* Both local customer and foreign customer must be allowed to make changes to their information.
* The system must be able to verify the information entered by the user.
* The system should be able to save, delete and update customers information.
* The system must be able to update information about locations, promotions and countries.

# Noun verb analysis

* **RED Color indicated words are nouns.**
* **BLUE Color indicated words are verbs.**
* The customer first register as a local customer or foreign customer with the system.
* Unregistered customers must enter information such as name, email and other information in order to gain access to the website.
* In order to register on the web site unregistered local customer must submit their name, country , e-mail , gender and date of birth.
* In order to register on the web site an unregistered foreign customer must submit their name, country, email, date of birth ,age, past experience and gender.
* Registered customer can log in to the system.
* Local customer must be able to use the website to view or obtain information on nations, hotels, visitors attractions and available foreign customer.
* Promotions must be available to Local customers.
* Local customer must be able to review establishments before making a reservation.
* Local customer should be able to compare package prices and foreign customers.
* Package prices and foreign customer must be available to local customers.
* Local customer must be able to pay services on the website using a payment methods.
* Foreign customer must be able to access their reservations through the web site.
* Foreign customer must have the ability to accept or reject reservations.
* The payment of foreign customers must be possible.
* Both local customer and foreign customer must be allowed to make changes to their information.
* The system must be able to verify the information entered by the user.
* The system should be able to save, delete and update customers information.
* The system must be able to update information about locations, promotions and countries.

# Identified classes using noun analysis

|  |  |  |
| --- | --- | --- |
| **Redundant data** | **Out of scope** | **Attribute** |
| Customer | System | Name |
|  | Website | email |
|  |  | Gender |
|  |  | Date of birth |
|  |  | Past experience |
|  |  | Hotels |

**The classes**

Unregistered local customer  
Unregistered foreign customer  
Registered local customer  
Registered foreign customer  
Promotions  
Reservation  
Package prices  
Payments  
Country  
Locations  
System admin

# CRC Cards

|  |  |
| --- | --- |
| Unregistered | local customer |
| **Responsibility** | **Collaborators** |
| Register to the system |  |
| Allow to view the Hotels and Places |  |

|  |  |
| --- | --- |
| Unregistered | Foreign customer |
| **Responsibility** | **Collaborators** |
| Register to the system |  |
| Allow to view the Apartments |  |

|  |  |
| --- | --- |
| Registered | local customer |
| **Responsibility** | **Collaborators** |
| Can view the Hotels and Places |  |
| Add and update customer details |  |
| Make payment | payment |
| Cancel reservation | Reservation, System admin |
| Add extra person |  |

|  |  |
| --- | --- |
| Registered | Foreign customer |
| **Responsibility** | **Collaborators** |
| Can view the Hotels and Places |  |
| Add and update customer details |  |
| Make payment | payment |
| Cancel reservation | Reservation, System admin |
| Add extra person |  |

|  |  |
| --- | --- |
| Promotions |  |
| **Responsibility** | **Collaborators** |
| Discounts for local customers | Payment |

|  |  |
| --- | --- |
| Reservation |  |
| **Responsibility** | **Collaborators** |
| Reservation details |  |
| Confirm reservation | System Admin, Payment |

|  |  |
| --- | --- |
| Package prices |  |
| **Responsibility** | **Collaborators** |
| Compare local and foreign package prices | Registered local customer, Registered foreign customer |

|  |  |
| --- | --- |
| Payments |  |
| **Responsibility** | **Collaborators** |
| Add the payment details |  |
| Validate |  |
| Invalidate |  |
| Get payment methods | Customer |
| Check payment details | System Admin |

|  |  |
| --- | --- |
| Country |  |
| **Responsibility** | **Collaborators** |
| update information about countries. | System admin |

|  |  |
| --- | --- |
| Locations |  |
| **Responsibility** | **Collaborators** |
| update information about locations | System admin |

|  |  |
| --- | --- |
| System admin |  |
| **Responsibility** | **Collaborators** |
| Login to system |  |
| Manage users | Registered local customer, Registered foreign customer |
| Confirm hotel and tourist details |  |

# Class Diagram (UML Notation)

# Diagram Description automatically generatedClass Header Files

## country.h

#include "location.h"

class country{

    private:

        char countryName[30];

    public:

        countryName();

        countryName(const char pcountryName[]);

        void displayCountry();

        ~countryName();

};

## location.h

#include "reservation.h"

class country{

    private:

        char countryName[30];

    public:

        countryName();

        countryName(const char pcountryName[]);

        void displayCountry();

        ~countryName();

};

## package\_price.h

#include "payment.h"

#include "reservation.h"

class packagePrice : public payment {

    private:

        char packageType[20];

        char packageID[20];

    public:

        packagePrice();

        packagePrice( const char ppackageType[] , const char ppackageID[]);

        void displayPackagePriceDetails();

        ~packagePrice();

};

## payment.h

#include "registered\_local\_customer.h"

#include "registered\_foreign\_customer.h"

class payment{

    private:

        int receiptNumber;

        double totalAmount;

    public:

        payment();

        payment( int receiptNumber , double totalAmount );

        void checkPayment();

        void confirmPayment();

        displayPaymentDetails();

        ~payment();

};

## promotion.h

#include "registered\_local\_customer.h"

class promotion{

    private:

        char promotionID[20];

        char promotionName[30];

    public:

        promotion();

        promotion( const char ppromotionID[20], const char ppromotionName[30]);

        void promotionDetails();

        ~promotion();

};

## registered\_foreign\_customer.h

#include "unregistered\_foreign\_customer.h"

#include "payment.h"

class registeredForeignCustomer : public unregisteredForeignCustomer{

    private:

        char customerName[30];

        char customerPassword[30];

    public:

        registeredForeignCustomer();

        registeredForeignCustomer( const char pcustomerName[], const char pcustomerPassword[]);

        void login();

        void addBookingHotel();

        void displayBookingHotel();

        ~registeredForeignCustomer();

};

## registered\_local\_customer.h

#include "unregistered\_local\_customer.h"

#include "payment.h"

class registeredLocalCustomer : public unregisteredLocalCustomer{

    private:

        char customerName[30];

        char customerPassword[30];

    public:

        registeredLocalCustomer();

        registeredLocalCustomer( const char pcustomerName[], const char pcustomerPassword[]);

        void login();

        addProfile();

        void modifyDetails();

        void logOut();

        ~registeredLocalCustomer();

};

## reservation.h

#include "payment.h"

#include "package\_price.h"

#include "location.h"

class reservation{

    private:

        int reservationNumber;

        int reservationCount;

    public:

        reservation();

        double calculateTotal();

        reservation(int preservationNumber, int preservationCount);

        void displayReservation();

        ~reservation();

};

## system\_admin.h

#include "location.h"

class systemAdmin {

    private:

        char systemAdminID[10];

        char systemAdminName[30];

        char systemAdminPassword[20];

    public:

        unregisteredForeignCustomer();

        unregisteredForeignCustomer( const char psystemAdminID[], const char psystemAdminName[], const char psystemAdminPassword[]);

        void registeredUser();

        void searchHotelNPlaces();

        ~unregisteredForeignCustomer();

};

## unregistered\_foreign\_customer.h

class unregisteredForeignCustomer {

    private:

        char customerName[30];

        char customerCountry[10];

        char customerEmailAddress[20];

        int customerPhoneNum;

    public:

        unregisteredForeignCustomer();

        unregisteredForeignCustomer( const char pcustomerName[], const char pcustomerCounty[], int pcustomerPhoneNum[], const char pcustomerEmailAddress[]);

        void registeredUser();

        void searchHotelNPlaces();

        ~unregisteredForeignCustomer();

};

## unregistered\_local\_customer.h

class unregisteredLocalCustomer {

    private:

        char customerName[30];

        char customerCountry[10];

        int customerPhoneNum;

        char customerEmailAddress[20];

    public:

        unregisteredLocalCustomer();

        unregisteredLocalCustomer( const char pcustomerName[], const char customerCounty[], int pcustomerPhoneNum[], const char pcustomerEmailAddress[]);

        void registeredUser();

        void searchHotelNPlaces();

        ~unregisteredLocalCustomer();

};

# CPP Files

## country.cpp

#include "country.h"

#include "location.h"

#include <cstring>

country::countryName(){

    strcpy(countryName, "");

}

country::countryName (const char pcountryName[]){

    strcpy(countryName, pcountryName);

}

void country::displayCountry{

}

country::~countryName(){

    //Destructor

}

## location.cpp

#include "location.h"

#include <cstring>

location::countryName(){

    strcpy(countryName, "");

}

location::countryName(const char pcountryName[]){

    strcpy(countryName, pcountryName);

}

void location::displayCountry(){

}

location::~countryName(){

    //Destructor

}

## package\_price.cpp

#include "package\_price.h"

#include "reservation.h"

#include <cstring>

package\_price::packgePrice(){

    strcpy(packageType,"");

    strcpy(packageID,"");

}

package\_price::packagePrice(const char ppackageType[] , const char ppackageID[]){

    strcpy(packageType,ppackageType);

    strcpy(packageID,ppackageID);

}

void package\_price::displayPackagePriceDetails(){

}

package\_price::~packagePrice(){

    //Destructor

}

## payment.cpp

#include "payment.h"

#include "reservation.h"

payment::payment(){

    receiptNumber = 0;

    totalAmount = 0;

}

payment::payment( int preceiptNumber , double ptotalAmount ){

    receiptNumber = preceiptNumber;

    totalAmount = ptotalAmount;

}

void payment::checkPayment(){

}

void payment::confirmPayment(){

}

payment::displayPaymentDetails(){

    return 0;

}

payment::~payment(){

    //Destructor

}

## promotion.cpp

#include "promotion.h"

#include <cstring>

promotion::promotion(){

    strcpy(promotionID,"");

    strcpy(promotionName,"");

}

promotion::promotion( const char ppromotionID[], const char ppromotionName[]){

    strcpy(promotionID,ppromotionID);

    strcpy(promotionName,ppromotionName);

}

void promotion::promotionDetails(){

}

promotion::~promotion(){

    //Destructor

}

## registered\_foreign\_customer.cpp

#include "registered\_foreign\_customer.h"

#include <cstring>

registered\_foreign\_customer::registeredForeignCustomer(){

    strcpy(customerName,"");

    strcpy(customerPassword,"");

}

registered\_foreign\_customer::registeredForeignCustomer(const char pcustomerName[], const char pcustomerPassword[]){

    strcpy(customerName,pcustomerName);

    strcpy(customerPassword,pcustomerPassword);

}

void registered\_foreign\_customer::login(){

}

void registered\_foreign\_customer::addBookingHotel(){

}

void registered\_foreign\_customer::displayBookingHotel(){

}

registered\_foreign\_customer::~registeredForeignCustomer(){

    //Destructor

}

## registered\_local\_customer.cpp

#include "registered\_local\_customer.h"

#include <cstring>

registered\_local\_customer::registeredLocalCustomer(){

    strcpy(customerName,"");

    strcpy(customerPassword,"");

}

registered\_local\_customer::registeredLocalCustomer(const char pcustomerName[], const char pcustomerPassword[]){

    strcpy(customerName,pcustomerName);

    strcpy(customerPassword,pcustomerPassword);

}

void registered\_local\_customer::login(){

}

registered\_local\_customer::addProfile(){

    return 0;

}

void registered\_local\_customer::modifyDetails(){

}

void registered\_local\_customer::logOut(){

}

registered\_local\_customer::~registeredLocalCustomer(){

    //Destructor

}

## reservation.cpp

#include "location.h"

#include "reservation.h"

#include "package\_price.h"

reservation::reservation(){

    reservationNumber = 0;

    reservationCount = 0;

}

reservation::calculateTotal(){

    return packagePrice \* reservationCount;

}

reservation::reservation(int preservationNumber, int preservationCount){

    reservationNumber = preservationNumber;

    reservationCount = preservationCount;

}

void reservation::displayReservation(){

}

reservation::~reservation(){

    //Destructor

}

## system\_admin.cpp

#include "system\_admin.h"

#include <strcpy.h>

systemAdmin::unregisteredForeignCustomer(){

    strcpy(systemAdminID,"")

    strcpy(systemAdminName,"")

    strcpy(systemAdminPassword,"")

}

systemAdmin::unregisteredForeignCustomer(){

    strcpy(systemAdminID,psystemAdminID)

    strcpy(systemAdminName,psystemAdminName)

    strcpy(systemAdminPassword,psystemAdminPassword)

}

void systemAdmin::registeredUser(){

}

void systemAdmin::searchHotelNPlaces(){

}

systemAdmin::~unregisteredForeignCustomer(){

    //Destructor

}

## unregistered\_foreign\_customer.cpp

#include "unregistered\_foreign\_customer.h"

#include "registered\_foreign\_customer.h"

#include <cstring>

class unregisteredForeignCustomer::unregisteredForeignCustomer(){

    strcpy(customerName,"");

    strcpy(customerCountry,"");

    strcpy(customerEmailAddress,"");

    customerPhoneNum = 0;

}

unregisteredForeignCustomer::unregisteredForeignCustomer( const char pcustomerName[], const char pcustomerCounty[], int pcustomerPhoneNum[], const char pcustomerEmailAddress[]){

    strcpy(customerName, pcustomerName);

    strcpy(customerCountry, pcustomerCountry);

    strcpy(customerEmailAddress, pcustomerEmailAddress);

    customerPhoneNum = pcustomerPhoneNum;

}

void unregisteredForeignCustomer::registeredUser(){

}

void unregisteredForeignCustomer::searchHotelNPlaces(){

}

unregisteredForeignCustomer::~unregisteredLocalCustomer(){

    //Destructor

}

## unregistered\_local\_customer.cpp

#include "unregistered\_local\_customer.h"

#include "registered\_local\_customer.h"

#include <cstring>

class unregisteredLocalCustomer::unregisteredLocalCustomer(){

    strcpy(customerName,"");

    strcpy(customerCountry,"");

    strcpy(customerEmailAddress,"");

    customerPhoneNum = 0;

}

unregisteredLocalCustomer::unregisteredLocalCustomer(const char pcustomerName[], const char customerCounty[], int pcustomerPhoneNum[], const char pcustomerEmailAddress[]){

    strcpy(customerName, pcustomerName);

    strcpy(customerCountry, pcustomerCountry);

    strcpy(customerEmailAddress, pcustomerEmailAddress);

    customerPhoneNum = pcustomerPhoneNum;

}

void unregisteredLocalCustomer::registeredUser(){

}

void unregisteredLocalCustomer::searchHotelNPlaces(){

}

unregisteredLocalCustomer::~unregisteredLocalCustomer(){

    //Destructor

}