## **Project Summary**

Group 12

# **Theater Ticket System**

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## **Domain description:**

Although most institutions nowadays have computerized system, some theaters still do not have a computerized system for generate tickets for the audience. Animplemented system could make the process of buying tickets faster and provide to the clientsanenjoyable and intuitiveinterface. Besides, the cost with workers would be reduced, and communication errors would be avoided as well ashuman errors would not happen.

Then, considering a theater that have a set of defined spectacles(one per day) during a period of time, our proposal is to create a system that facilitate the process of buying theater tickets. The spectacles already have defined parameters, such as event name, date and price. So, the customers select which event they want to attend, select the seat's number for each spectacle according to the availability, and the system will generate the tickets which contain the event name, date and price, the seat's number and the customer's personal data based on stored data available on customer's profile option. The customer's profile will store data such as customer's name, social security number, billing address, card number, and phone number. The customers will be asked to confirm their data, and provide the card's security number along with the card's password in order to validate and pay the purchase.

## **Domain analysis:**

<u>Identifying nouns and noun phrases</u>: spectacles, name, date, price, events, seats, select events and seats, seat number, availability, insert name and social security number, generate tickets, contain.

### **UML** diagrams:

# Event - name: String - date: String - price: Float - seats: Seat[] + Event() + setName(aName: String): void + setPrice(aPrice: Float): void + setSeats(seats: Seat): void + getName(): String + getDate(): Float + getPrice(): Float + getAvailableSeats(): Seat[] + main(): void

Seat		
- number: Integer		
- availability: Boolean		
+ Seat()		
+ setNumber(aNumber: Int): void		
+ setAvailability(availability: Boolean): void		
+ getNumber(): Integer		
+ getAvailability(): Boolean		

# - cardNumber: Integer - cardSecurityNumber:Integer + CheckOut() + enterCardNumber(aNumber: Integer): void + compareCardNum(): Boolean + enterSecNumber(aNumber: Integer): Integer

CheckOut

## **Profile** - name: String - ssn: Integer - billingAddress: String - cardNumber: Integer - phoneNumber: Integer + Profile () + setName(aName: String): void + setSsn(ssn: Integer): void + getName(): String + getSsn(): Integer + setBilling Address(Address: String): void + getBillingAddress(): String + setCardNumber(Number: Integer): void + getCardNumber(): Integer + setPhoneNumber(Number: Integer): void + getPhoneNumber(): Integer

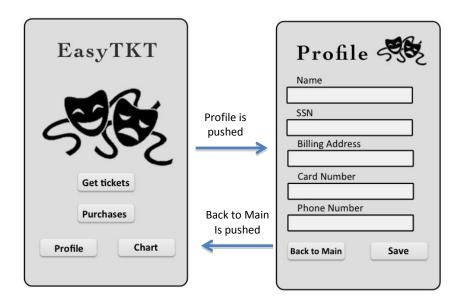
## **Interactionanalysis:**

Basically there will be a Main Window, where it will be possible to the user to choose between Get Tickets, Purchases, Profile and Chart. The Get Tickets button will redirect the user to the Events Window and a list containing with a bunch of events and its related details (such as event's date, name and ticket price); in this window the user will be able to select an event between the ones displayed, advance to Seats Window by tapping Select Seat button or go back to the Main Window by pushing Back button. Once the event is selected and Select Seat button is pressed, Seats Window will show up and the user will be able to check and select available seats for the selected spectacle. By clicking Back button, the user will be redirected to Events Window, and clicking in the Add to Chart button, the user will see the Chart Window. In this window, it will be possible to the user to see all the tickets included in the shop chart already, edit them by selecting the desired ticket one and then pushing the Edit button; go back to Main Window by pushing Back to Main button, or pay the ticket(s) by pushing Check Out button. After clicking in the Check Out button, the user will now see the Check Out Window, where it will show all user's information provided in the Profile Window; also, it will ask for the registered card's number and the security card's number. In this window the user will be able to go back to Chart Window by clicking Back button or confirm the purchase by clicking Confirm button. Once Confirm button is pushed, Ticket Window will pop up and display all the main information about the event such as event name, date and seat's number, and also the user's name and SSN. By clicking in the button Done the user will be redirected to the Main Window.

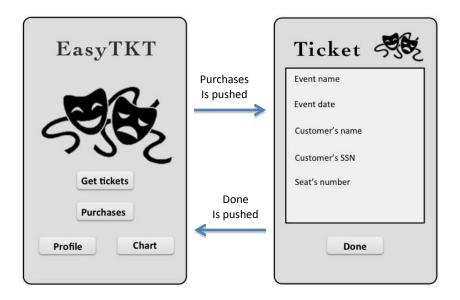
Purchases button in the Main Window will take the user to the Ticket Window and display the tickets ordered. Chart will show the Chart Window, and the Profile button will take the user to the Profile window, where it will ask the user's information such as user's name, SSN, billing address, a card number and a pone number. All this information will be stored after the user pushes Save button and will be used in order to facilitate future purchases. Also, it will be possible to the user to go back to Main Window by clicking Back to Main button.

The user interaction with this application is also demonstrated in the pictures below, that give an idea of how the application will look like:

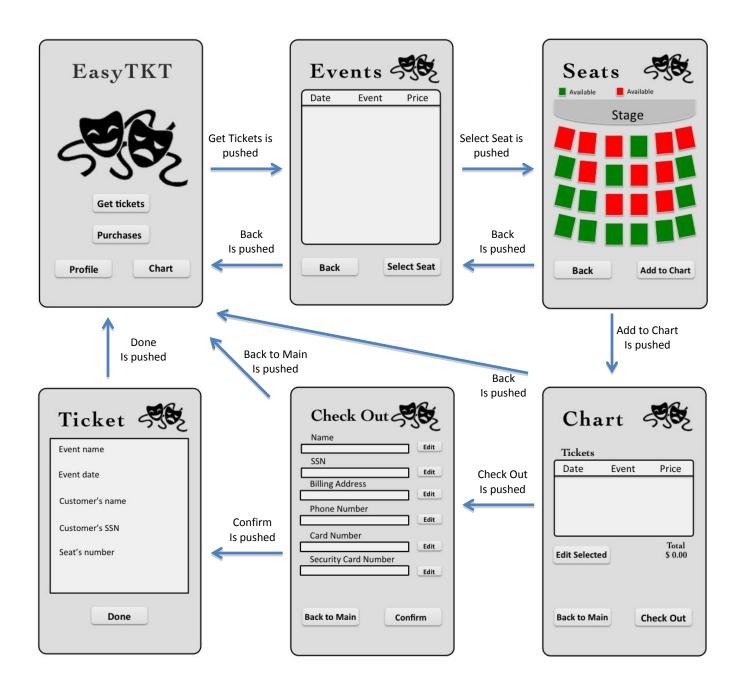
- First Interaction: Storing user's data such as name, SSN, billing address, phone number and card's number.



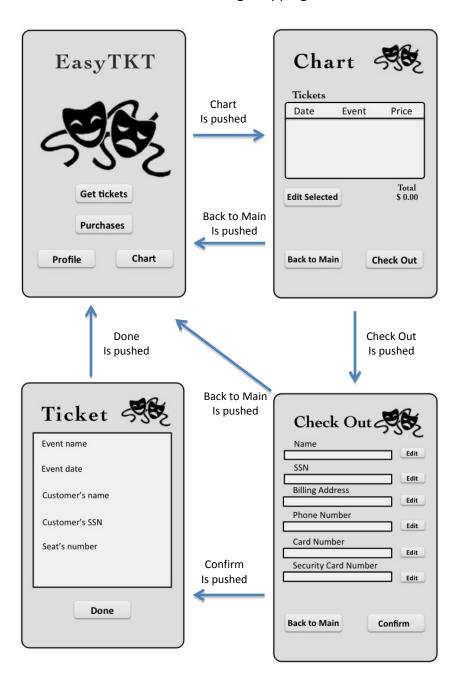
- Second interaction: Reviewing purchases.



- Third Interaction: Purchasing a ticket.



- Fourth interaction: Reviewing shopping chart.



## Plan of work:

All the work to develop this application will follow the chart below, but it will not be restricted to it, once other functionalities and work may be necessary as the app's development advances.

Description	Assigned to
Graphical User Interface	Lucas Leal
UML Implementation	Lucas Leal and Lucas Araujo
Seat window's functionalities	Lucas Leal
Profile window's functionalities	Lucas Leal
Chart window's functionalities	Lucas Leal
Check Out window's functionalities	Lucas Leal
Main window's functionalities	Lucas Araujo
Ticket window's functionalities	Lucas Araujo
Event window's functionalities	Lucas Araujo
Testing	Lucas Leal and Lucas Araujo