**Lab 7 – P3. Închiriere filme**

Scrieți o aplicație pentru o firmă de închiriere de filme.

Aplicația stochează:

• filme: <id>,<titlu>,<descriere>,<gen>,etc

• clienți: <id>,<nume>,<CNP>,etc

Creați o aplicație care permite:

• gestiunea listei de filme și clienți.

• adaugă, șterge, modifică, lista de filme, lista de clienți

• căutare film, căutare clienți.

• Închiriere/returnare filme

• Rapoarte:

• Clienți cu filme închiriate ordonat dupa: nume, după numărul de filme închiriate

• Cele mai inchiriate filme.

• Primii 30% clienti cu cele mai multe filme (nume client și numărul de filme închiriate)

**Plan de iterații**

Iteration 1:

* create the main elements of the program (client, movie) and write basic implementations for data manipulation features
* mockup a custom command line interface
* target functionalities: data management (add/remove form list, edit item), UI backend

Iteration 2:

* implement a movie/client search engine
* polish UI
* add rent information

Iteratoin 3:

* add reports
* perform refactoring & optimization wherever possible

Lista de activități

# T1. Add new client to the clients list

# T2. Change client information

# T3. Remove client from list

# T4. Add new movie to the movies list

# T5. Change movie information

# T6. Remove movie from list

# T7. Implement the search engine

# T8. Implement rent management options

# T9. Add reports

# T7. Create a data manager (save/load from filesystem)

# T8. Write data stylizers and visualizers (tables/boxes etc)

# T9. Implement UI

**Scenariu de rulare**

|  |  |  |
| --- | --- | --- |
| Program | User | Description |
| Type a command to execute.  Type "help" to show the list of available commands.  >> |  | Waits for user input |
|  | help |  |
| <Displays help menu...>  Type a command to execute.  Type "help" to show the list of available commands.  >> |  |  |
|  | Add client Ion Popescu with cnp 7197654890234 | Types client registration command |
| Successfully added client:  Id : 24  Name : Popescu Ion  CNP : 7197654890234  Press any key to continue . . . |  | Prints operation feedback info |
|  | <Presses any key> |  |
| Type a command to execute.  Type "help" to show the list of available commands.  >> |  |  |
|  | Add movie Start from year 2000 genre Romance and description "Christmas special" | Types movie registration command |
| Successfully added movie:  Id : 21  Title : Start  Genre : Romance  Description : Christmas special  Year : 2000  Press any key to continue . . . |  |  |
|  | <Presses any key> |  |
| >> |  |  |
|  | Client 0 rents movie 0 | Types rental request |
| Successfully created rent:  Id : 126  Client Id : 0  Client Name : Popescu Marcel  Movie Id : 0  Movie Name : Sahara  Rent Date : 21-11-20  Returned : No  On :  Press any key to continue . . . |  | Prints rent feedback |
|  | <Presses any key> |  |
| >> |  |  |
|  | Display first 30% clients with most rents |  |
| <Prints a list of 7 clients ordered by name and number of rented movies>  Press any key to continue . . . |  |  |
|  | <Presses any key> |  |
| >> |  |  |
|  | exit |  |
| Execution ends | | |

**Lista de funcționalități:**

|  |  |  |
| --- | --- | --- |
| Id | Description | Related commands |
| F1 | Client addition | Add client <name> <surname> with cnp <cnp> |
| F2 | Client editing data | Change client <id> name to <name>  Change client <id> surname to <surname>  Change client <id> cnp to <cnp> |
| F3 | Client removal | Remove client <id> |
| F4 | Movie addition | Add movie <title> from year <year> genre <genre> and description <description> |
| F5 | Movie editing data | Change movie <id> title to <title>  Change movie <id> year to <year>  Change movie <id> description to <description>  Change movie <id> genre to <genre> |
| F6 | Movie removal | Remove movie <id> |
| F7 | Rent management | Client <id> rents movie <id>  Cancel rent <id> |
| F8 | Rent cancellation | Cancel rent <id> |
| F9 | Search options | Search <search\_string> in <clients|movies> |
| F10 | Random data generator | Populate with <n> random clients  Populate with <n> random movies  Add <n> random rents |
| F11 | Display options | Display clients  Display movies  Display rents |
| F12 | Report generators | Display most rented movies  Display clients with most rents  Display first <p%> clients with most rents |