PUG CHALLENGE EXCHANGE AMERICAS

Case Study:

Application Modernization

June 27, 2016

Rob Marshall

Agenda

- What is Modernization
- Why we did the effort
- How long did this take
- The old and the new
- What we learned and how we worked around issues
- Questions

What is Modernization ?

A New UI ?

Move to OO ?

A Re-write ?

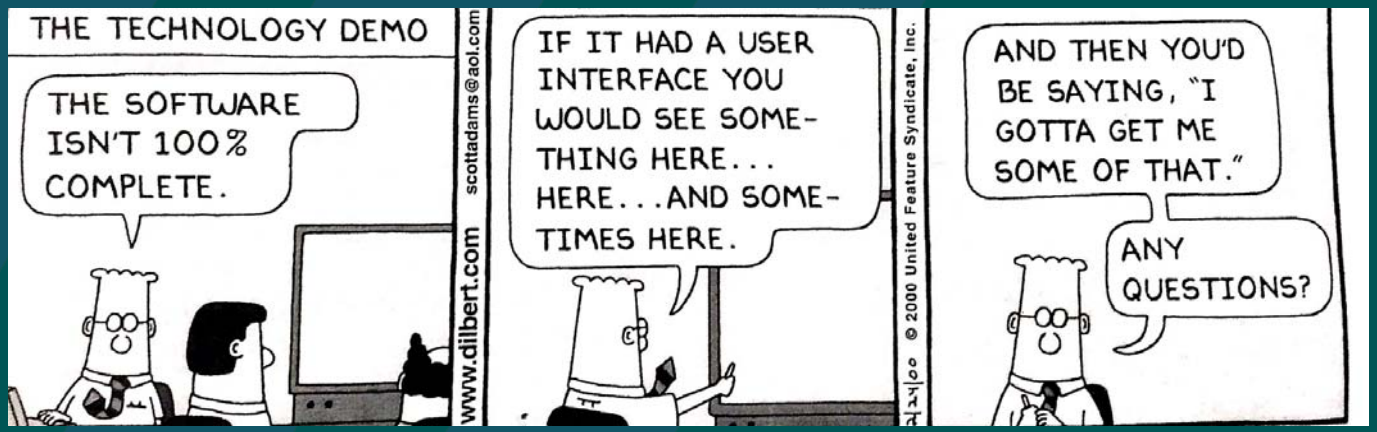
Something else

Why we did this

We wanted to expose our new consultants to a real application to get some practical experience

We wanted to prove the process

We had a subject matter expert who could work with the team



The “old” application

Character procedural code with embedded UI and business logic

The user interface is 80x25 terminal

There were database issues (field names) that were outdated

The code constructs and style were Progress v6 based

The New Environment

PDSOE was used for development, currently using restbroker but designed to support the Progress Application Server.

Developed in OpenEdge 11.5.1

The existing business logic was harvested into new Object Oriented Business Entities

The new application uses REST services and JSON datasets

The UI is Kendo, jQuery and Bootstrap

The UX team provided a vision to the team

ABL Unit was used to perform reproducible unit test cases of each condition in the new Business Entities

The Benefits

Runs on any computer using just the browser

Mobility can be leveraged by using Tablets

Interface is self-explanatory and extremely easy to use

User Interface relies on technologies with wide availability of professionals
(JavaScript, HTML5, CSS)

Modern User Experience can improve end-user productivity

Architecture can help reduce infrastructure costs

Uses current IT leading Security Technology
(Tomcat & Spring Security framework)

What was done:

Login page

Single Page Application Landing Page with Menu

6 Maintenance screens (CRUD) converted

Patron Inquiry function migrated (approx. 130 character screens)

88 new web template pages created

34 new Business Entities created

How long did it take ?

Good question.

Staff:
1 Senior developer who knew the application very well
5 Junior developers

Time:
Total of 10 weeks elapsed time

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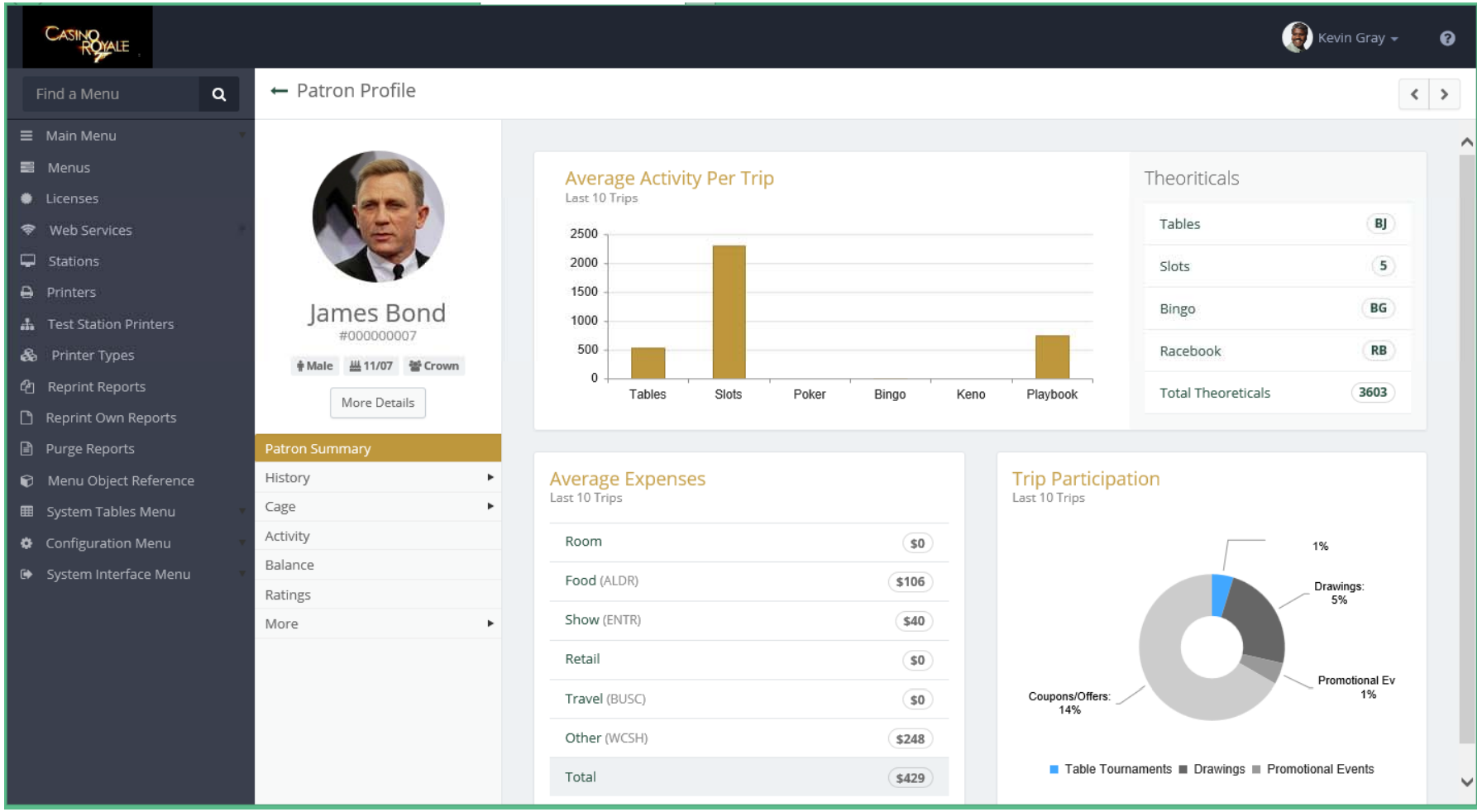
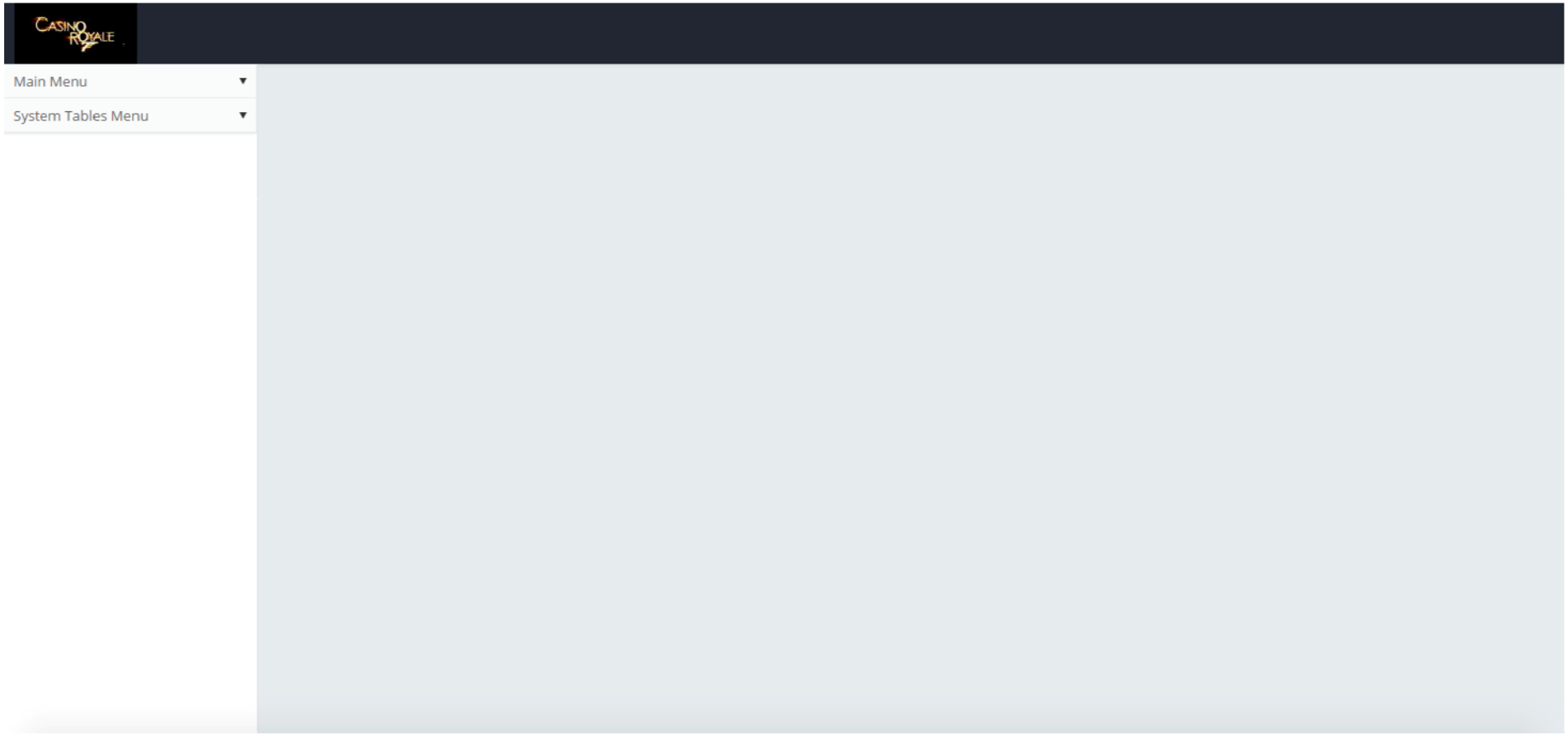
The current look of the application

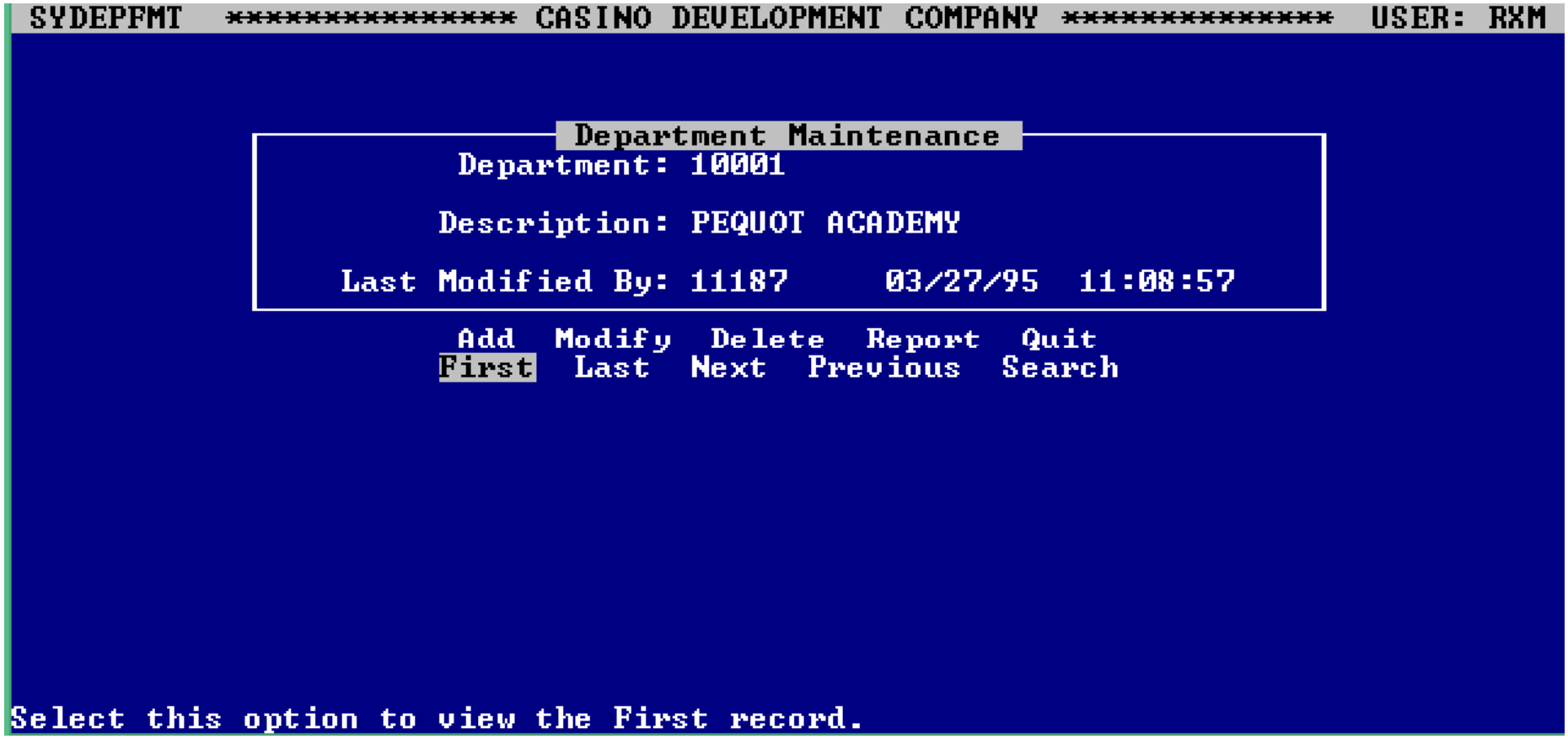
The vision from the UX team



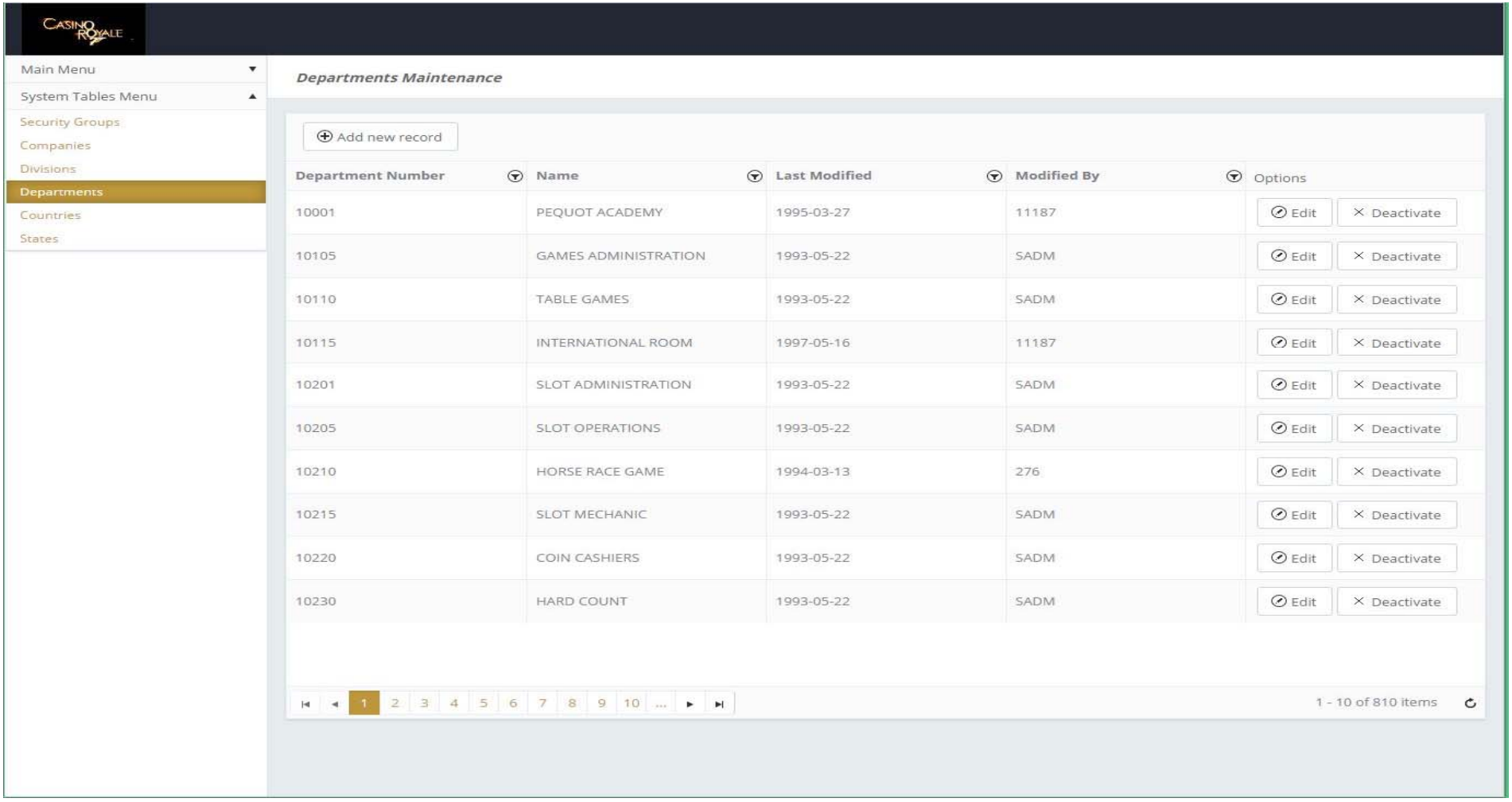
The reality



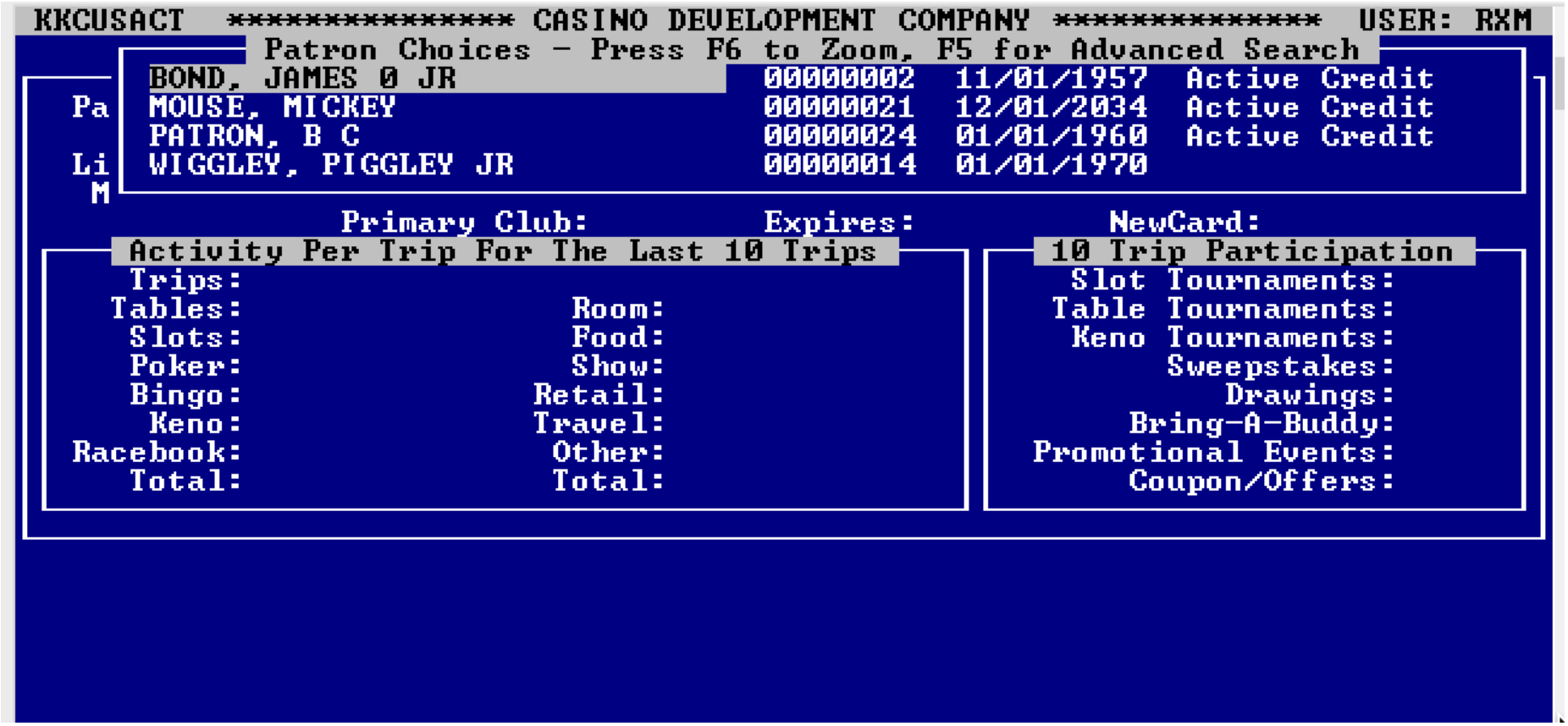
Current Maintenance Screens



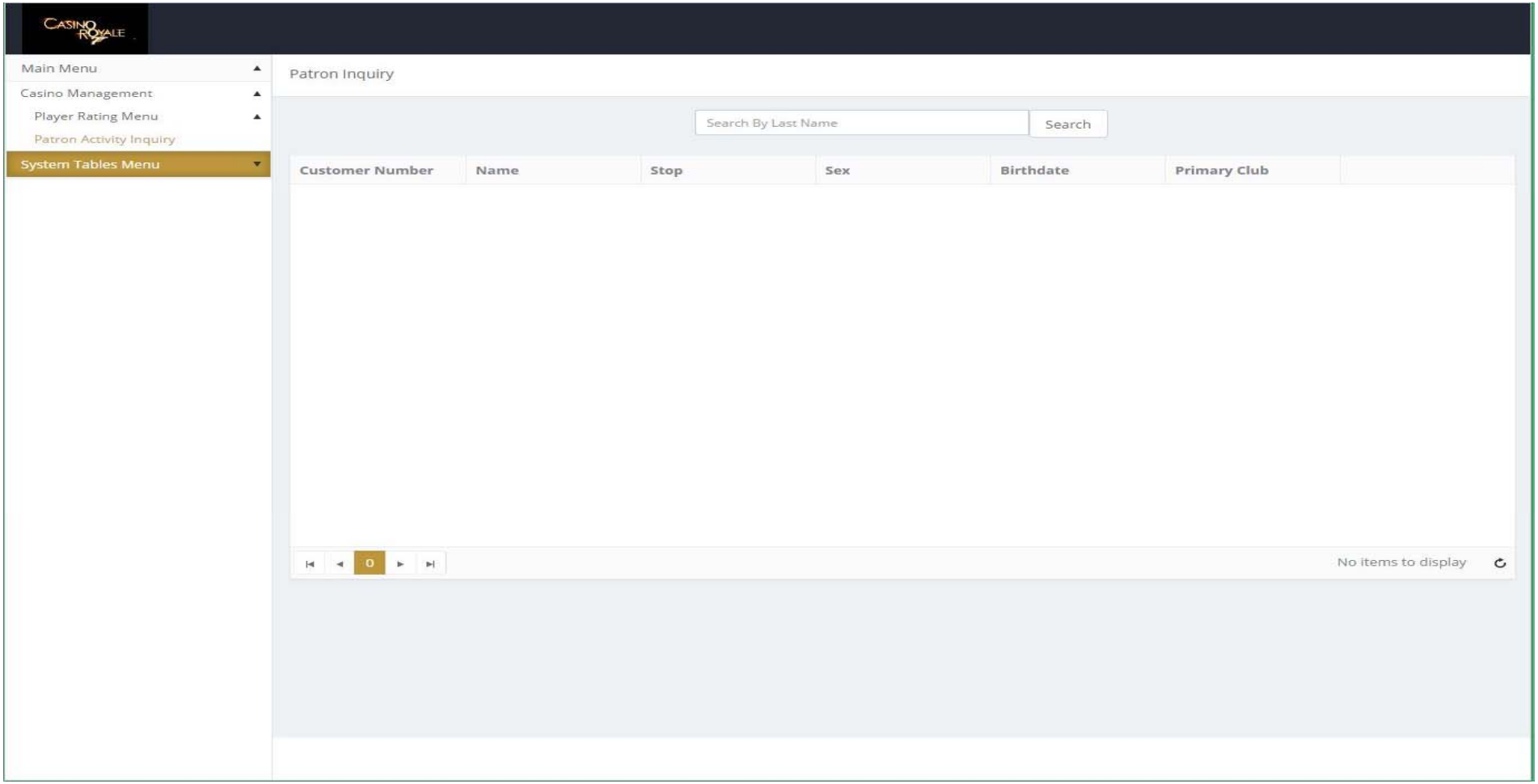
The reality


Casino Royale
Main Menu
System Tables Menu
Security Groups
Companies
Divisions
Departments
Countries
States
Departments Maintenance
Add new record
Department Number
Name
Last Modified
Modified By
Options
10001 PEQUOT ACADEMY 1995-03-27 11187
10105 GAMES ADMINISTRATION 1993-05-22 SADM
10110 TABLE GAMES 1993-05-22 SADM
10115 INTERNATIONAL ROOM 1997-05-16 11187
10201 SLOT ADMINISTRATION 1993-05-22 SADM
10205 SLOT OPERATIONS 1993-05-22 SADM
10210 HORSE RACE GAME 1994-03-13 276
10215 SLOT MECHANIC 1993-05-22 SADM
10220 COIN CASHIERS 1993-05-22 SADM
10230 HARD COUNT 1993-05-22 SADM
Edit
Deactivate
1 2 3 4 5 6 7 8 9 10 ...
1 - 10 of 810 items

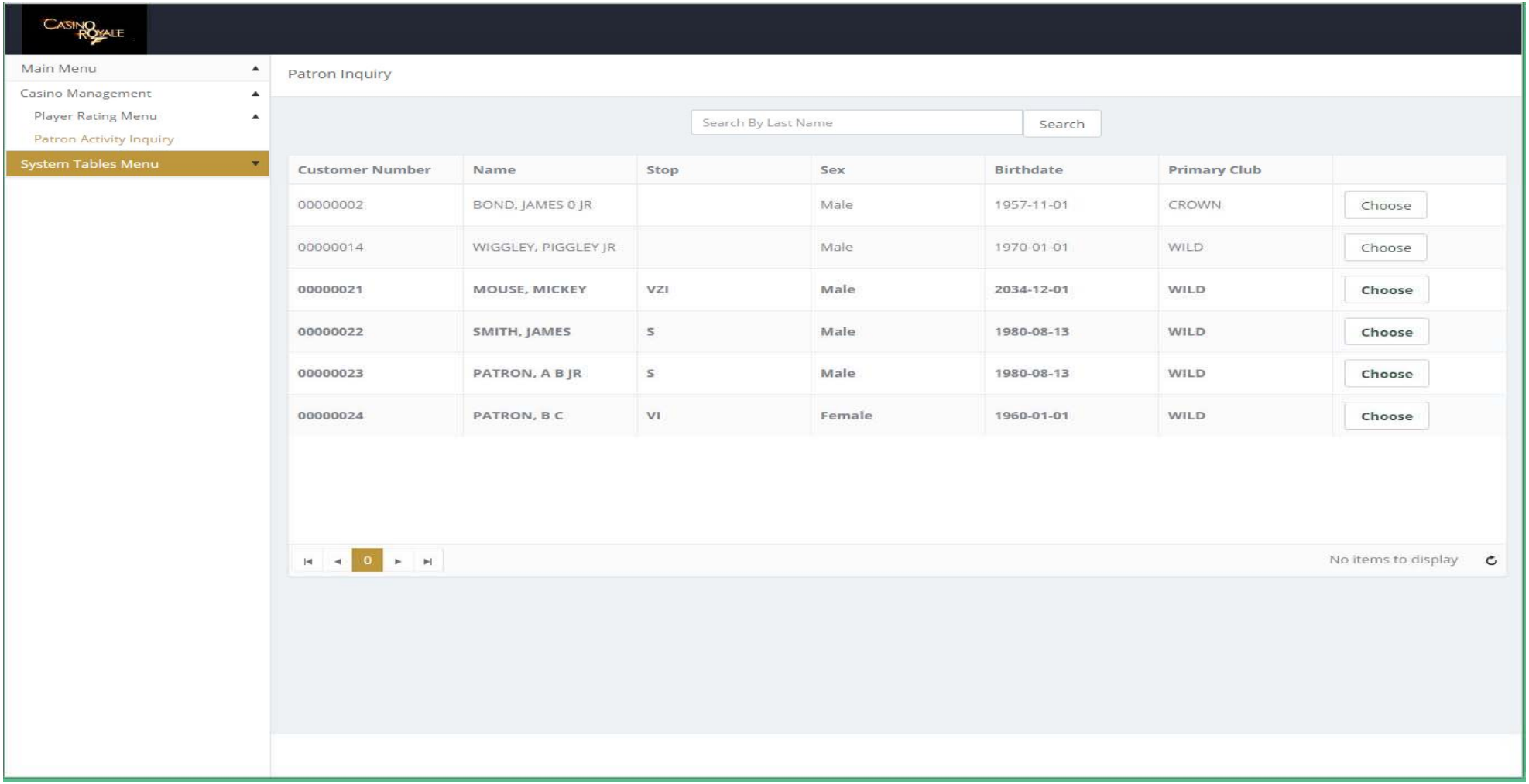
Current Patron Search



The reality


Casino Royale
Main Menu
Casino Management
Player Rating Menu
Patron Activity Inquiry
System Tables Menu
Patron Inquiry
Search By Last Name
Search
Customer Number
Name
Stop
Sex
Birthdate
Primary Club
0
No items to display

The reality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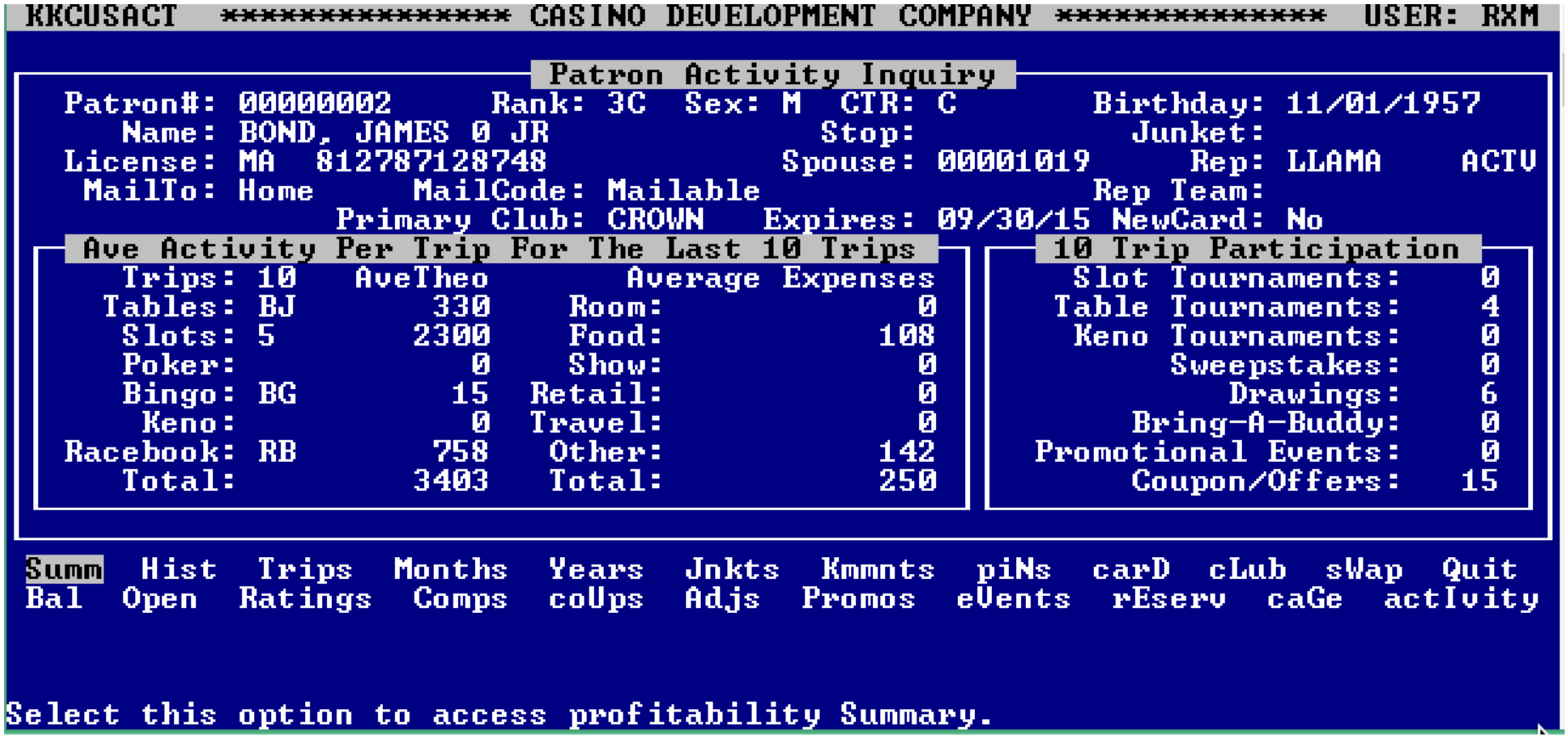
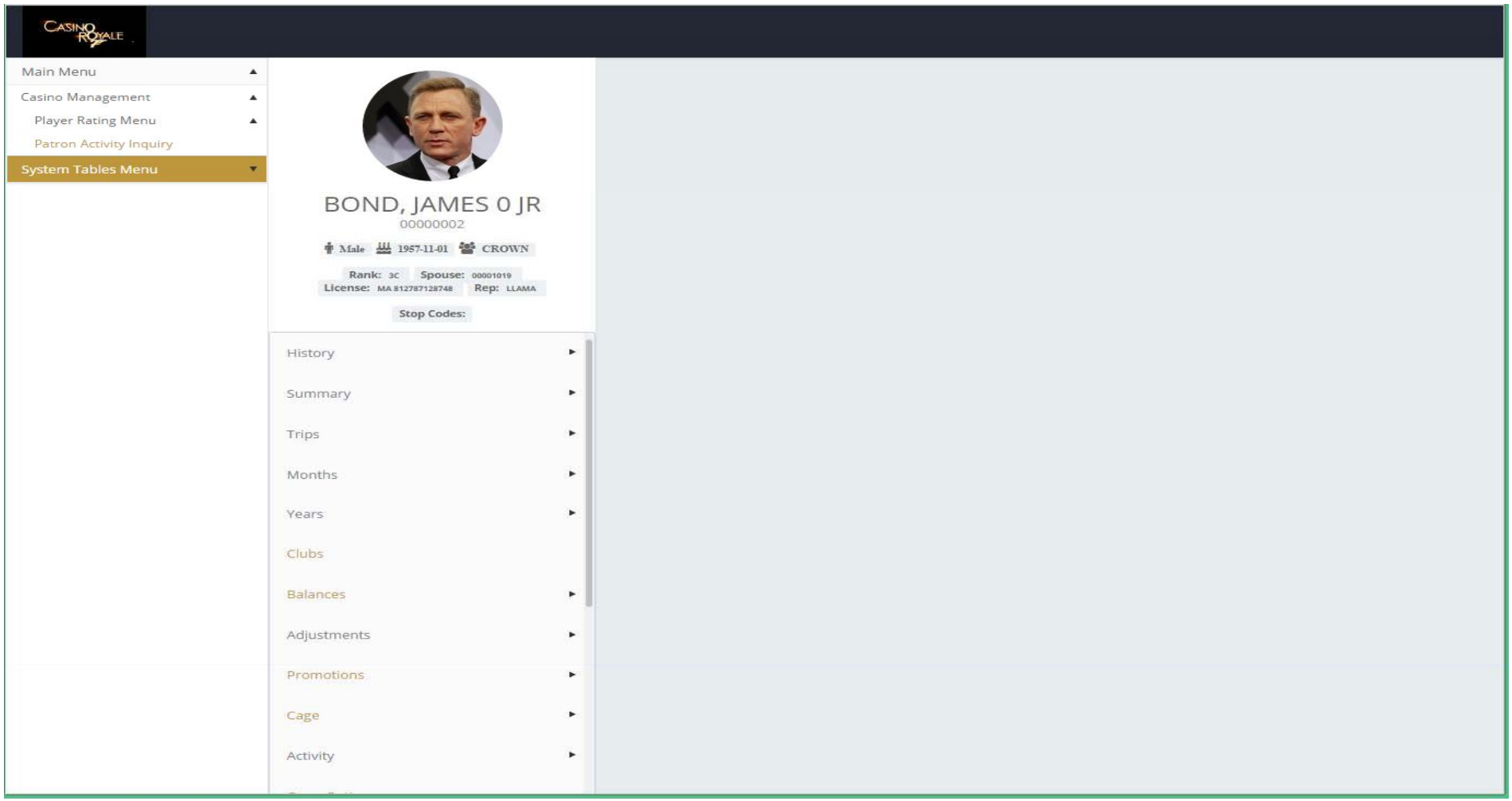
Patron Inquiry
Search By Last Name
Search
Customer Number
Name
Stop
Sex
Birthdate
Primary Club
00000002
BOND, JAMES 0 JR
Male
1957-11-01
CROWN
Choose
00000014
WIGGLEY, PIGGLEY JR
Male
1970-01-01
WILD
Choose
00000021
MOUSE, MICKEY
VZI
Male
2034-12-01
WILD
Choose
00000022
SMITH, JAMES
S
Male
1980-08-13
WILD
Choose
00000023
PATRON, A B JR
S
Male
1980-08-13
WILD
Choose
00000024
PATRON, B C
VI
Female
1960-01-01
WILD
Choose
0
No items to display

Patron Landing Screen



The reality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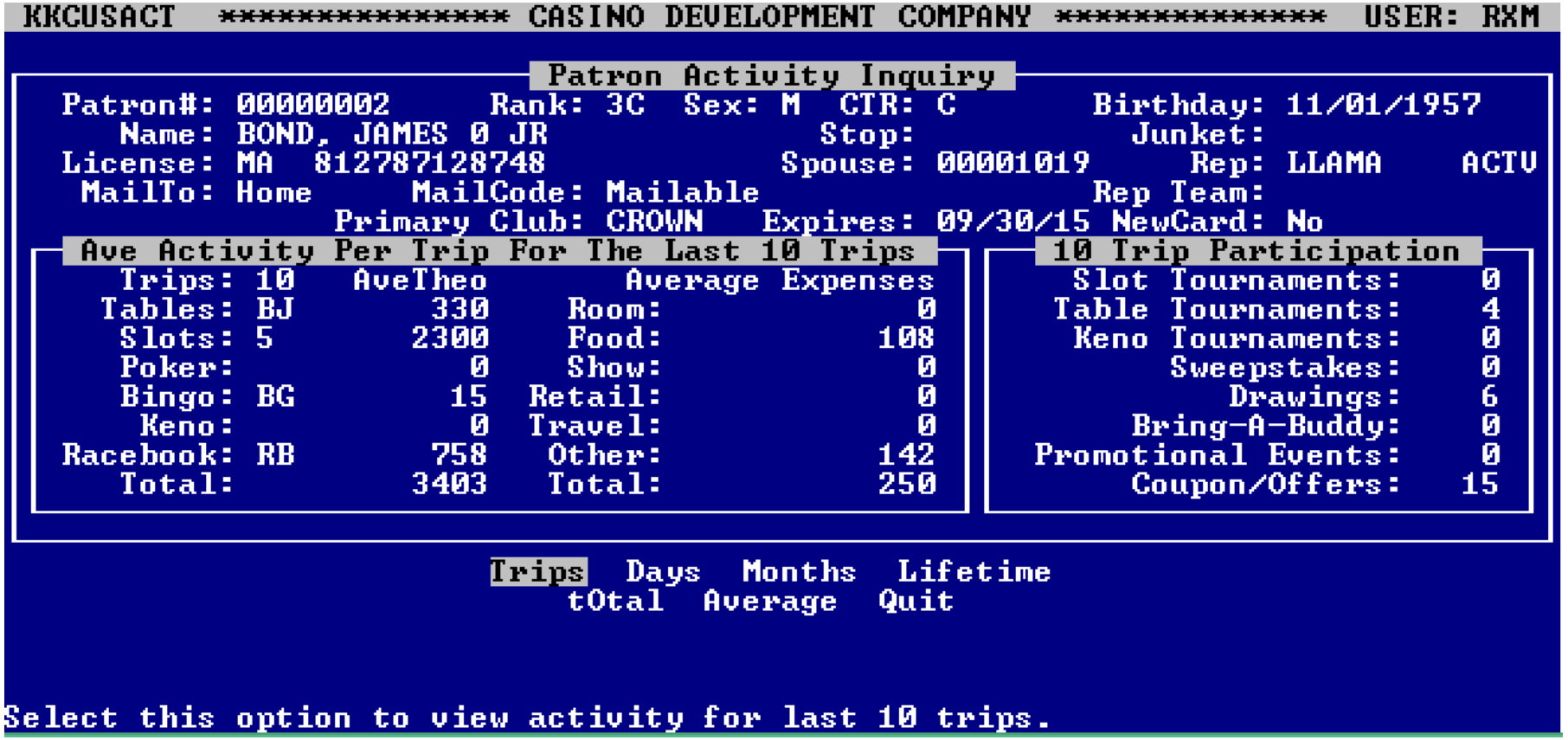
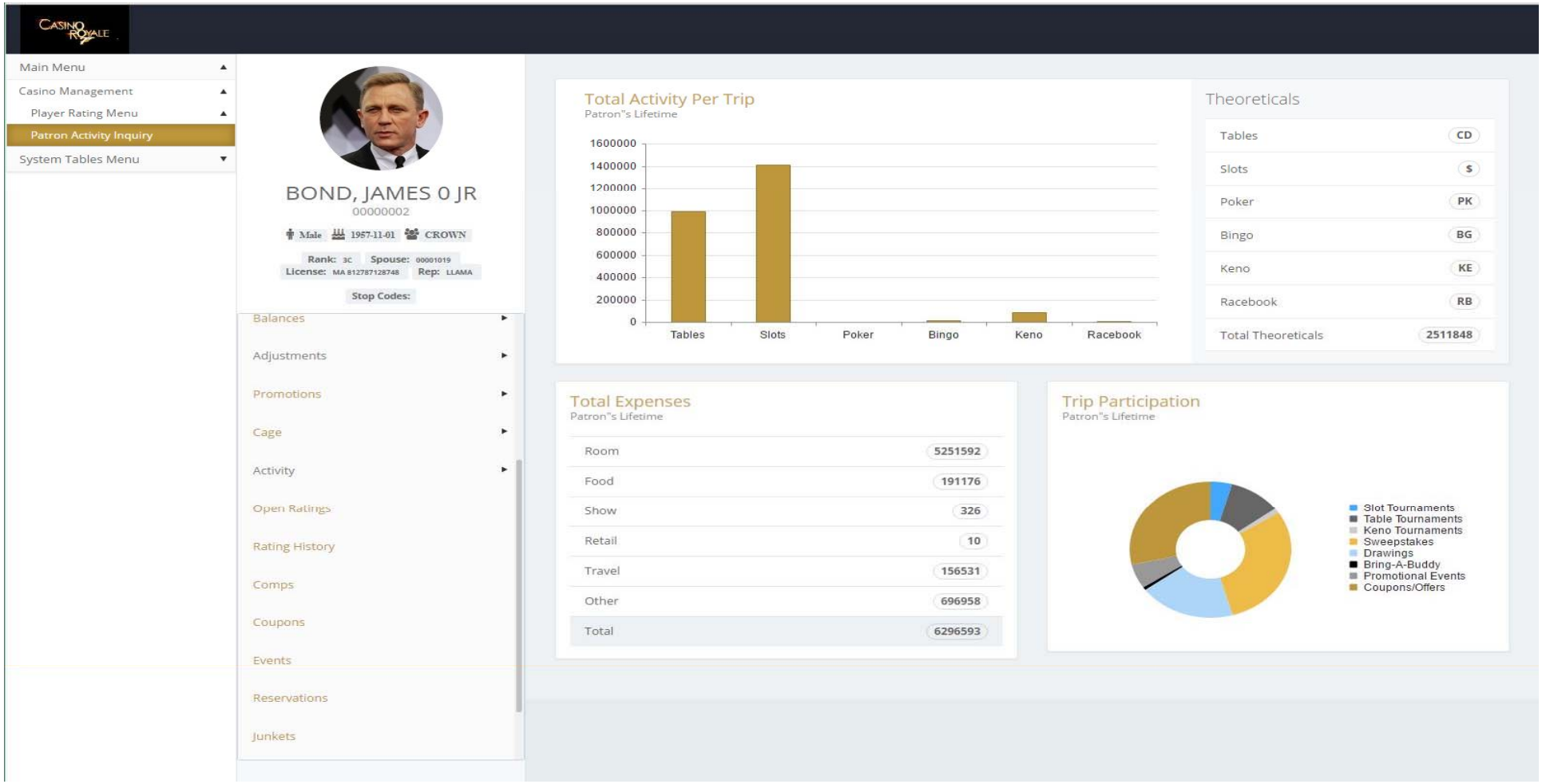
Patron Activity Inquiry
System Tables Menu
BOND, JAMES 0 JR
00000002
Male
1957-11-01
CROWN
Rank: 3C
Spouse: 00001019
License: MA 812787128748
Rep: LLAMA
Stop Codes:
History
Summary
Trips
Months
Years
Clubs
Balances
Adjustments
Promotions
Cage
Activity

Patron Activity Screen



The reality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BOND, JAMES 0 JR
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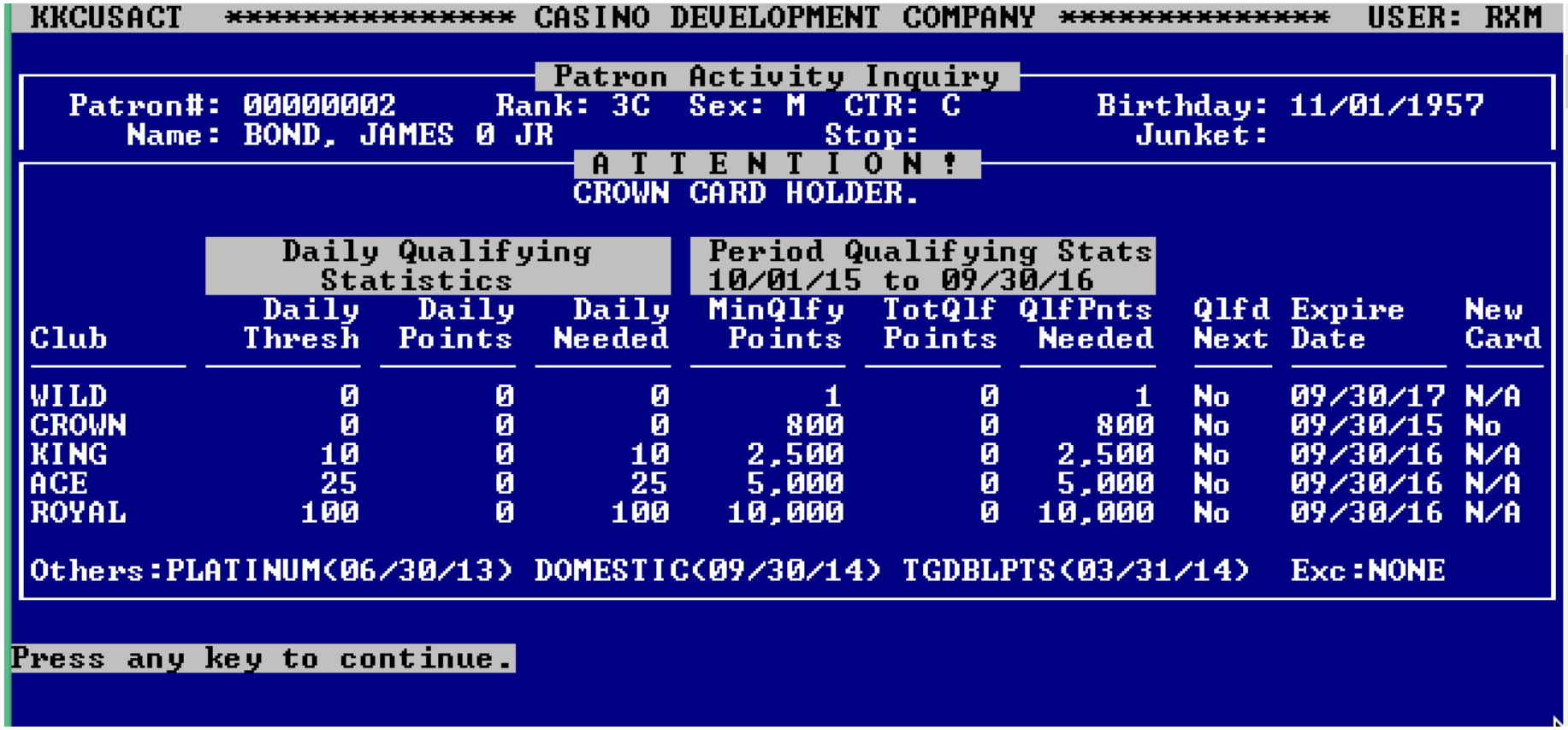
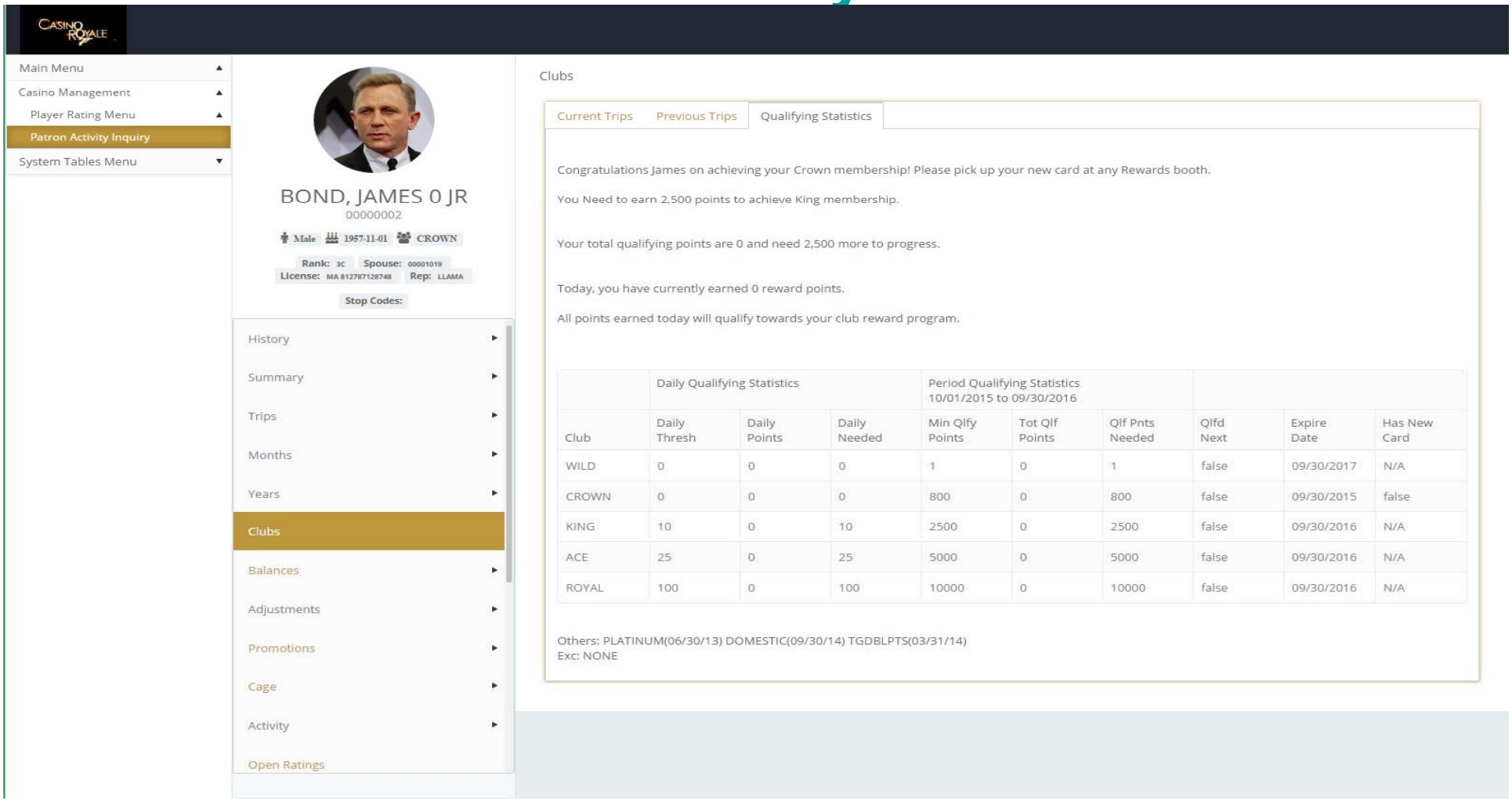
Male 1957-11-01 CROWN
Rank: 3C Spouse: 00001019
License: MA 812787128748 Rep: LLAMA
Stop Codes:
Balances
Adjustments
Promotions
Cage
Activity
Open Ratings
Rating History
Comps
Coupons
Events
Reservations
Junkets
Total Activity Per Trip
Patron"s Lifetime
1600000
1400000
1200000
1000000
800000
600000
400000
200000
0
Tables
Slots
Poker
Bingo
Keno
Racebook
Theoreticals
Tables CD
Slots $
Poker PK
Bingo BG
Keno KE
Racebook RB
Total Theoreticals 2511848
Total Expenses
Patron"s Lifetime
Room 5251592
Food 191176
Show 326
Retail 10
Travel 156531
Other 696958
Total 6296593
Trip Participation
Patron"s Lifetime
Slot Tournaments
Table Tournaments
Keno Tournaments
Sweepstakes
Drawings
Bring-A-Buddy
Promotional Events
Coupons/Offers

Patron Club Screen



The reality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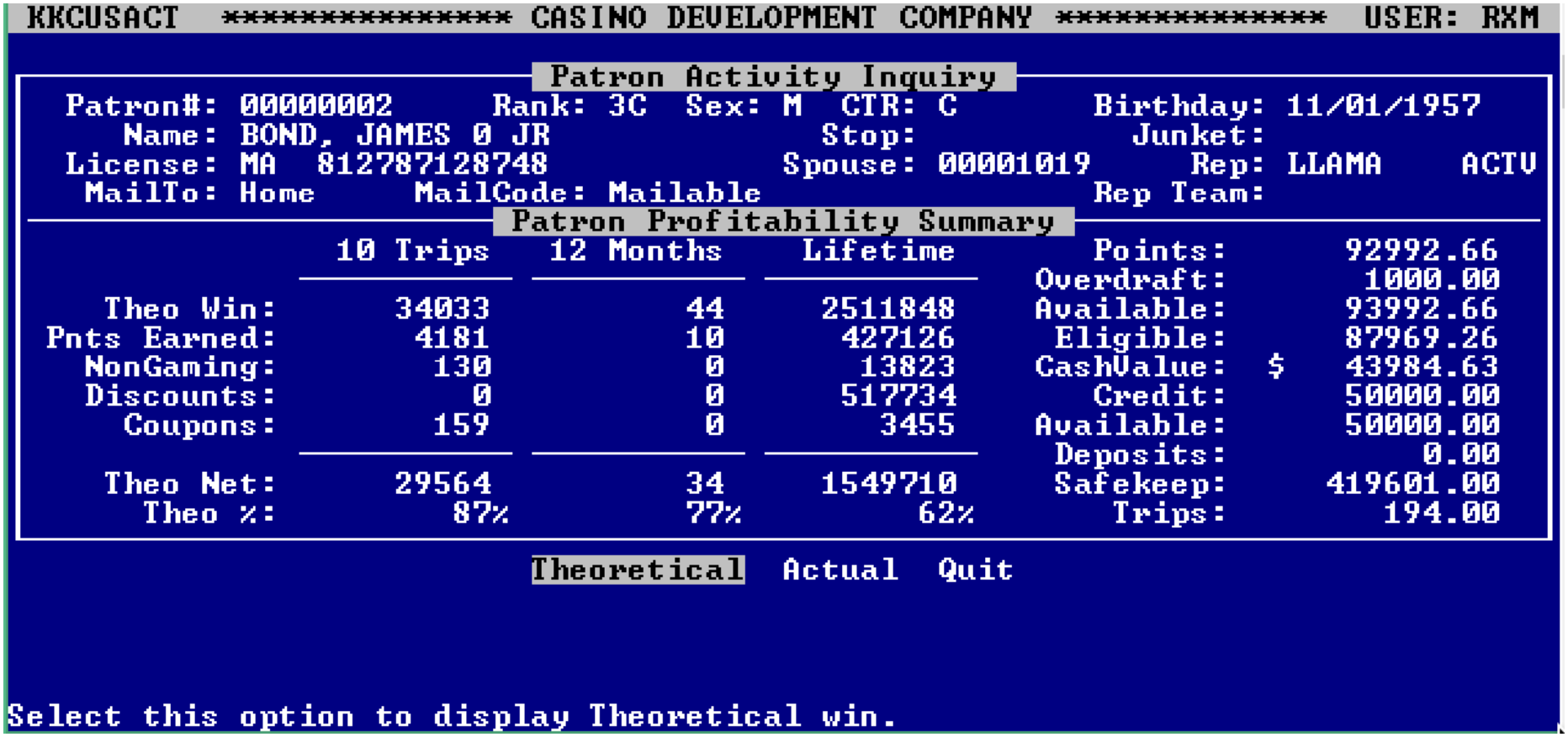
Rep: LLAMA
Stop Codes:
History
Summary
Trips
Months
Years
Clubs
Balances
Adjustments
Promotions
Cage
Activity
Open Ratings
Clubs
Current Trips
Previous Trips
Qualifying Statistics
Congratulations James on achieving your Crown membership! Please pick up your new card at any Rewards booth.
You Need to earn 2,500 points to achieve King membership.
Your total qualifying points are 0 and need 2,500 more to progress.
Today, you have currently earned 0 reward points.
All points earned today will qualify towards your club reward program.
Daily Qualifying Statistics
Period Qualifying Statistics 10/01/2015 to 09/30/2016
Club
Daily Thresh
Daily Points
Daily Needed
Min Qlfy Points
Tot Qlf Points
Qlf Pnts Needed
Qlfd Next
Expire Date
Has New Card
WILD 0 0 0 1 0 1 false 09/30/2017 N/A
CROWN 0 0 0 800 0 800 false 09/30/2015 false
KING 10 0 10 2500 0 2500 false 09/30/2016 N/A
ACE 25 0 25 5000 0 5000 false 09/30/2016 N/A
ROYAL 100 0 100 10000 0 10000 false 09/30/2016 N/A
Others: PLATINUM(06/30/13) DOMESTIC(09/30/14) TGDBLPTS(03/31/14)
Exc: NONE

Patron Summary Screen



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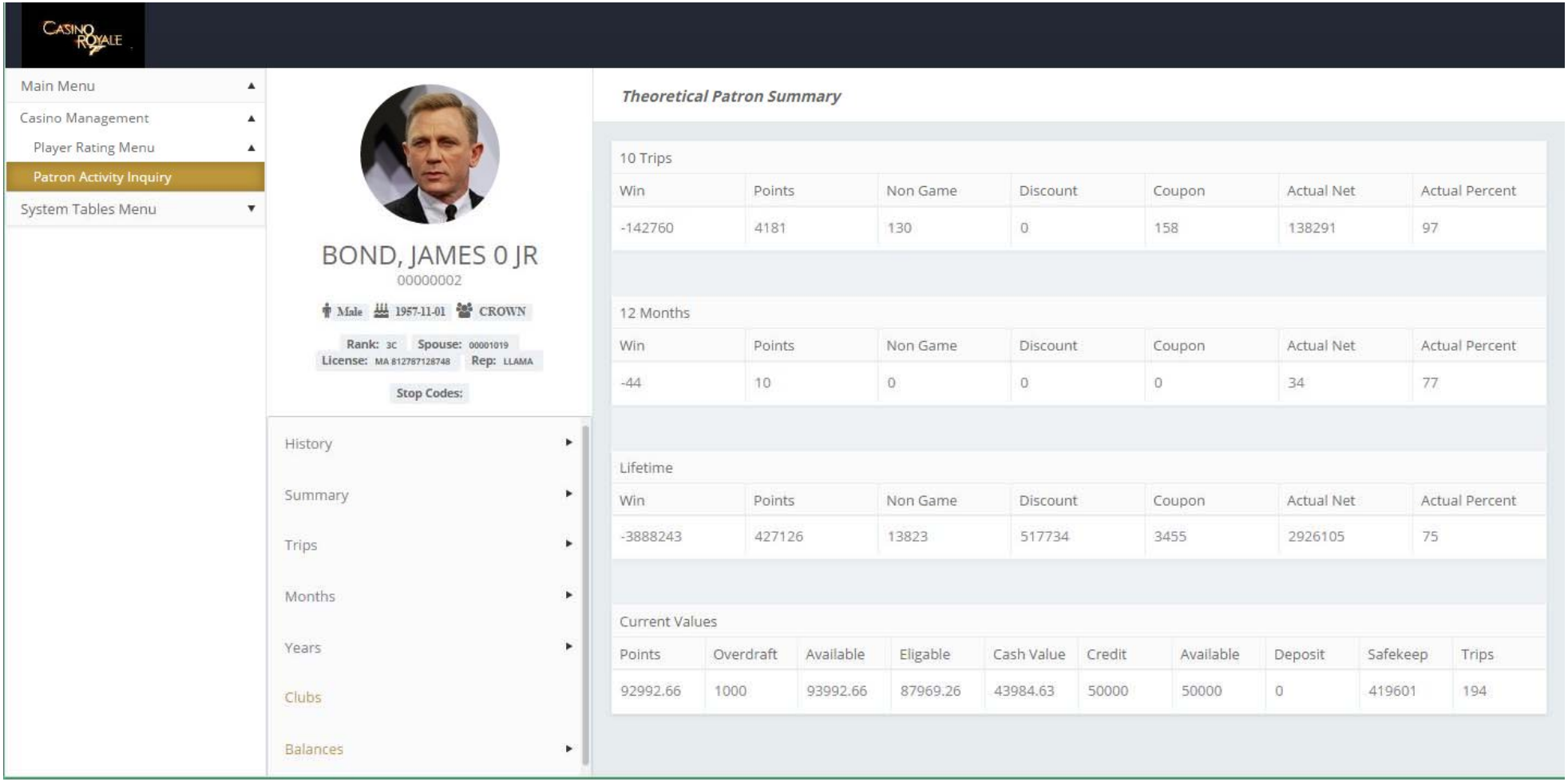
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Spouse: 00001019
License: MA 812787128748
Rep: LLAMA
Stop Codes:
History
Summary
Trips
Months
Years
Clubs
Balances
Theoretical Patron Summary
10 Trips
Win
Points
Non Game
Discount
Coupon
Actual Net
Actual Percent
-142760
4181
130
0
158
138291
97
12 Months
Win
Points
Non Game
Discount
Coupon
Actual Net
Actual Percent
-44
10
0
0
0
34
77
Lifetime
Win
Points
Non Game
Discount
Coupon
Actual Net
Actual Percent
-3888243
427126
13823
517734
3455
2926105
75
Current Values
Points
Overdraft
Available
Eligable
Cash Value
Credit
Available
Deposit
Safekeep
Trips
92992.66
1000
93992.66
87969.26
43984.63
50000
50000
0
419601
194

What we learned and how we worked around issues

Related Sessions:

484: Give Your Project a Spark

380: A Simple Approach to Modernize WebSpeed with Kendo UI

844: Pulling Back the Curtain on Application Modernization

Questions ?

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