

DATABASE PROJECT

For

Totally Illegal Betting Company (TIBC)



Course Number: MIS6326.501

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1. Company Background:

TIBC is a small underground college football gambling company based out of Dallas. They provide betting options for customers all over the country via phone and the bets are placed using lines created by company bookies. Due to licensing and regulatory pushes, betting online was a work in progress, but as the company's customer base is growing they are going online by launching their website and mobile application.

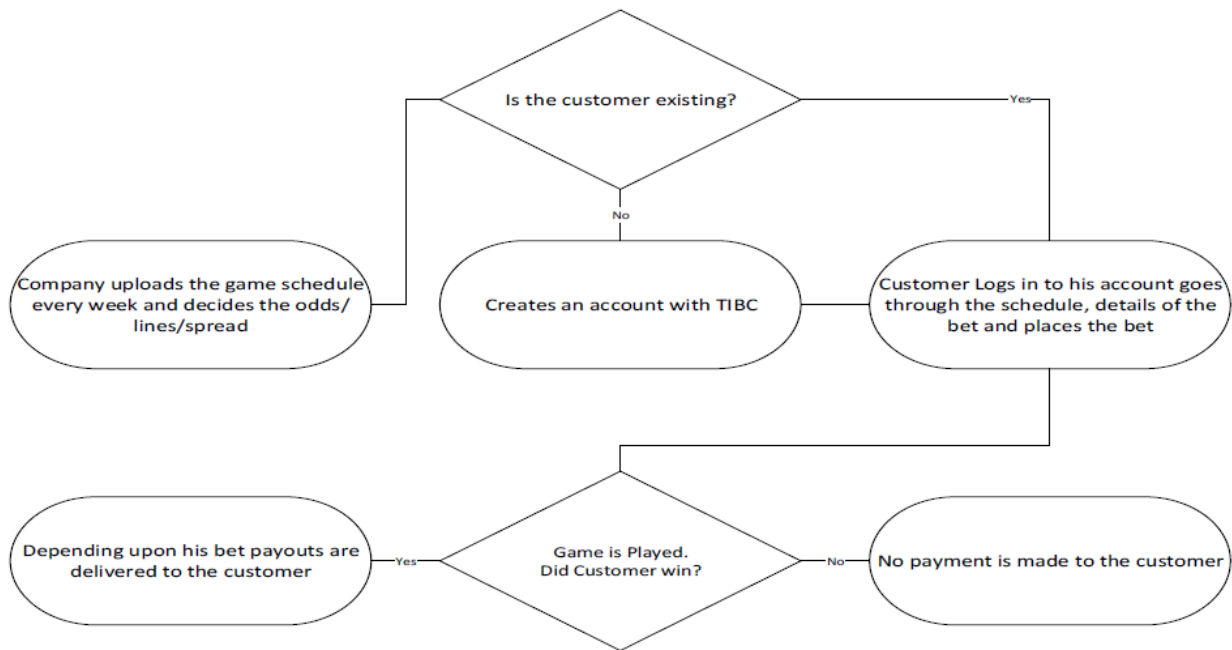
2. Problems in the Existing Services:

- With the company growing rapidly, keeping track of customers and their transaction details on paper is becoming difficult.
- Using phone for placing the bets is cumbersome and requires a lot of manpower.
- Distributing payouts is also very time consuming as it is difficult to keep track of each one of them.

3. Proposed Data Base Solution:

- It should store the details of the games/schedule and information about lines/odds so that the customers can know about them easily.
- It should store the bets placed by the customers so that transactions can be tracked which will allow the company to keep a track of its profits/revenue.
- It should keep track of games in case of a push (or when a game is 8/cancelled) so that refunds can be given to the customer.
- It should also keep a track of all the payouts and details about the collection of money when a bet is lost by the customer.

4. Flowchart:



5. Explanation of the Bets:

- a. **Straight Bet** – Spread is determined by the company. Customer bets on the favored team to beat the spread or un-favored team to beat the spread. Negative determines the favored team. For Example

Team	Spread
Texas	-6
California	

The above line means that Texas is favored. If customers bet on Texas, they win the bet if Texas wins by 7 points or more. 6 points is a push and the money is refunded. If the points are less than 6 then the customers lose. If customer bets on California, California must lose by not more than 6, win, or tie for payout.

Payout is $10/11 * \text{bet} + \text{bet}$.

- b. **Total bet** - Company determines the total number of points that will be scored by the two teams. The customer bets on the over or under.

Payout is $10/11 * \text{bet} + \text{bet}$

- c. **Money line** – Customer bets on the winner. They win if the team they bet on wins the match.

Company determines the “money line” which is how much money must be paid to win 100 dollars. For Example

Team	Money Line
Texas	-300
California	170

Texas is favored in this scenario (negative). If Texas wins, the customers receive 100 dollars for every 300 dollars they bet.

Payout is calculated as $(100/\text{line}) * \text{bet} + \text{bet}$

If they bet on California to win they receive 170 dollars for every 100 dollars they bet.

Payout is calculated as $(\text{line}/100) * \text{bet} + \text{bet}$.

6. Table Description:

a) **Customer Table**

This table contains the personal information of the customers who use TIBC Services.

b) **Financial Table**

This table stores the financial details of the customer such as bank account details like account number, routing number which will be used for payouts.

c) **Schedule**

This table stores the information about the schedule of the game i.e. details of the teams playing, timings, location and the status of the game.

d) **Available Bet**

This table stores the details about different type of bets available for a customer and the details about lines/odds/spread which is decided by the company.

e) **Customer Bet**

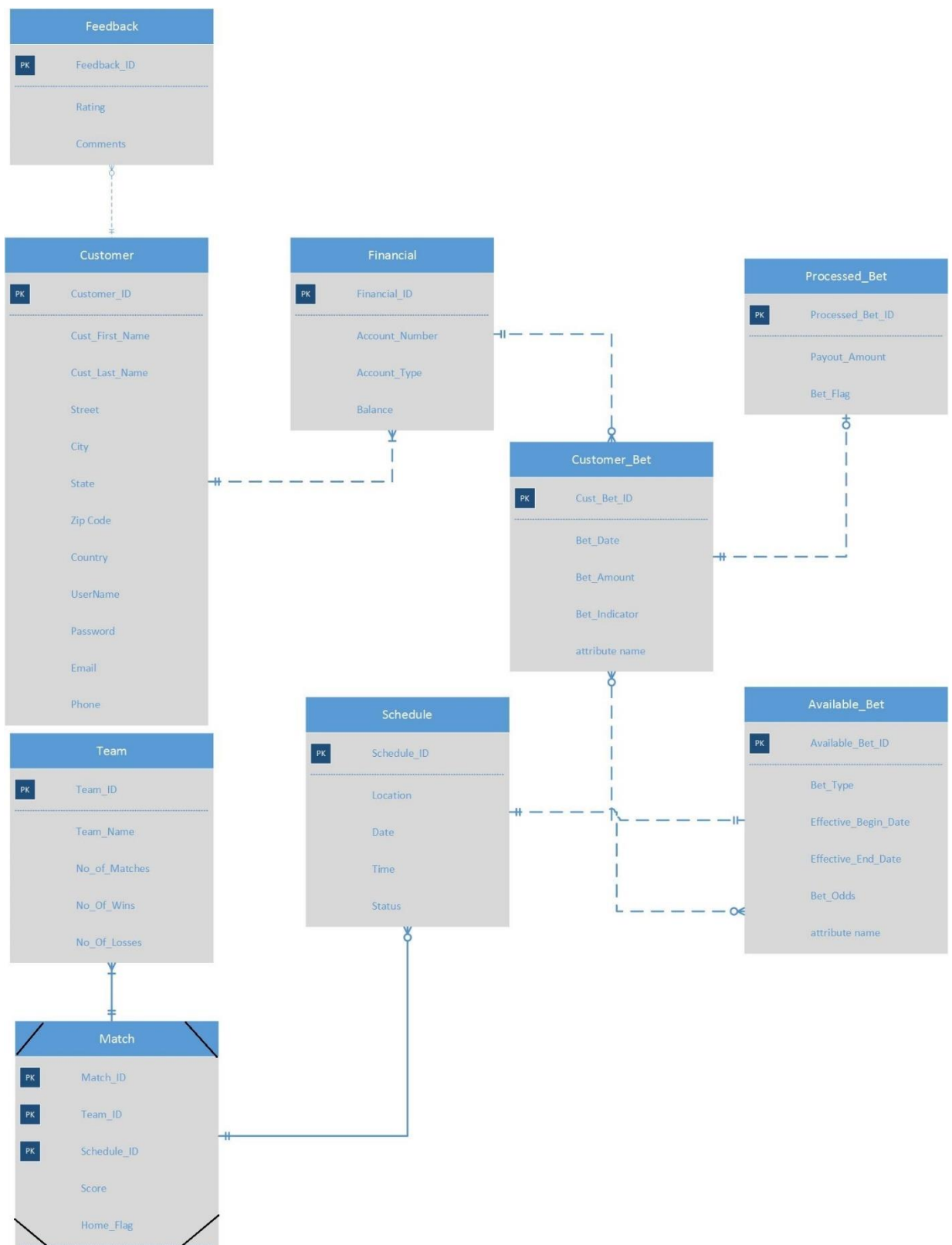
This table stores the details of the bets placed like the amount which is bet, the team which they are betting on and the payment method.

f) **Processed Bets**

This table stores the status of the bets and the payments which are due for each customer. A query will be run on this table to calculate the payouts depending on the type of bet.

- g) **Team** – This table stores information about the details of the teams like location, rankings, number of wins and losses.
- h) **Match** – This table stores the match details like scores, home team and the outcome of the game.
- i) **Feedback** - This table records the feedback from the customers for the services.

7. Entity Relationship Diagram:



8. Relational Database Schema:

CUSTOMER (Customer_ID, Cust_First_Name, Cust_Last_Name, City, State, Zip, Phone_Number, Email_Id, Username, Password, Type)

FINANCIAL_TABLE (Financial_ID, Account_Number, Routing_Number, Account_Type, Balance, Customer_ID)

TEAM (Team_ID, Team_Name, No_Of_Wins, No_Of_Losses)

SCHEDULE (Schedule_ID, Location, Date, Time, Status)

MATCH (Match_ID, Team_ID, Schedule_ID, Score, Home_Flag)

AVAILABLE_BET (Available_Bet_ID, Bet_Type, Effective_Begin_Date, Effective_End_Date, Odd, Schedule_ID)

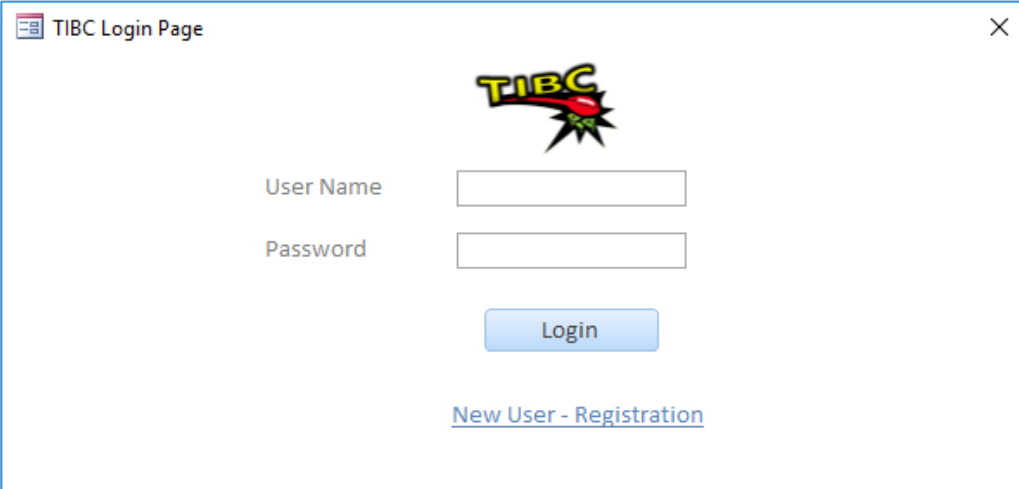
CUSTOMER_BET (Customer_Bet_ID, Bet_Date, Amount, Bet_Indicator, Financial_ID, Available_Bet_ID)

PROCESSED_BETS (Processed_Bet_ID, Payout_Amount, Bet_Flag, Customer_Bet_ID)

FEEDBACK (Feedback_ID, Rating, Comments, Customer_ID)

9. TIBC Login and Main Menu

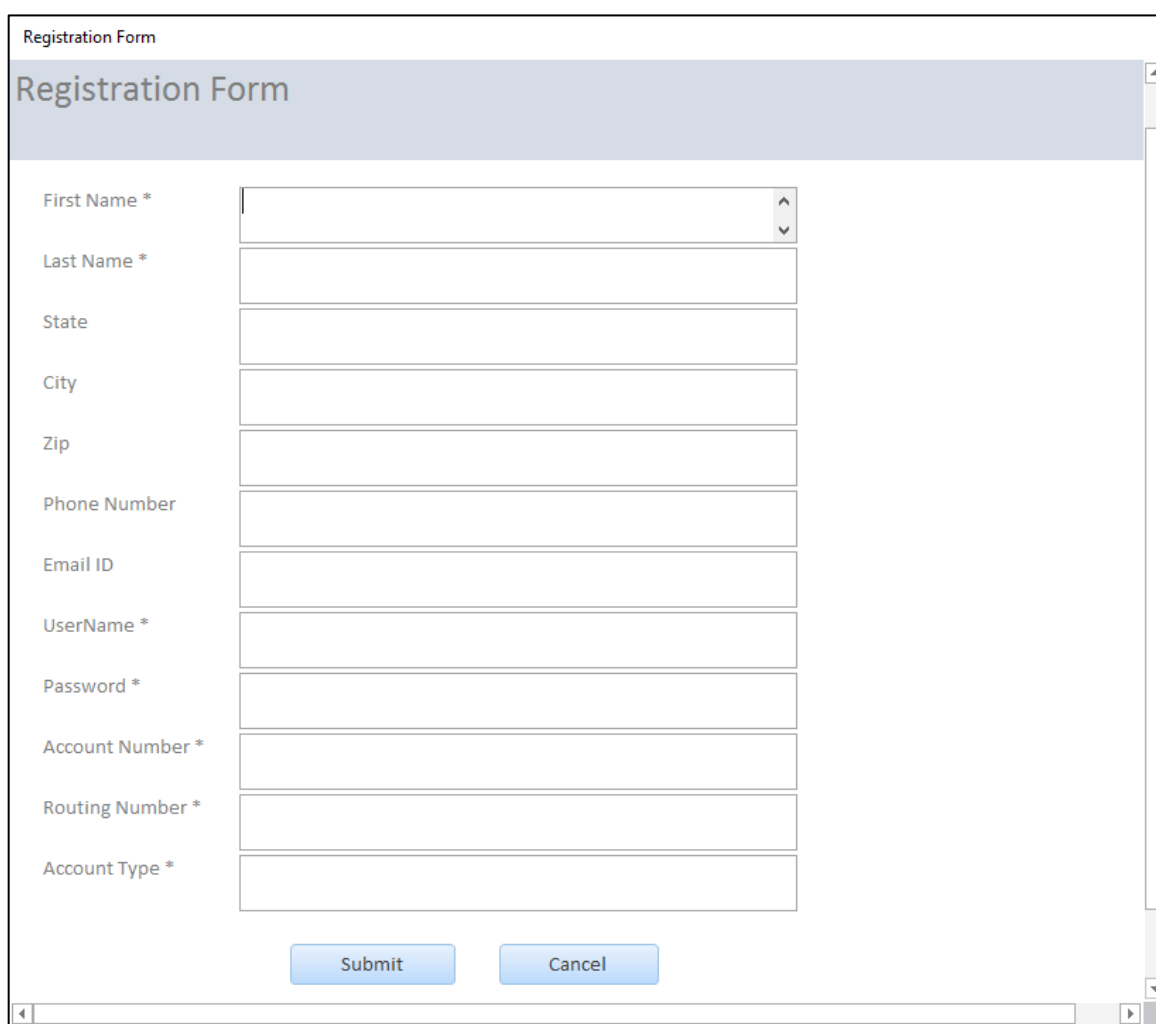
The Login shown below helps the customers to login to the TIBC by providing their Username and Password.



The screenshot shows a web browser window titled "TIBC Login Page". At the top center is the TIBC logo, which features the letters "TIBC" in a stylized, bold font with a red and yellow color scheme and a green starburst effect. Below the logo are two input fields: "User Name" and "Password". Below these fields is a blue "Login" button. At the bottom of the page is a blue hyperlink labeled "New User - Registration".

The new users can register to TIBC using the "New User – Registration" form and provide

relevant details like Username, Password, Email ID, Phone Number and Account details. The “New User- Registration” form is as shown below:



The image shows a web-based registration form titled "Registration Form". The form is contained within a window-like border. At the top, there is a header bar with the title "Registration Form". Below the header, the form fields are arranged vertically. The fields are: "First Name *" (with a small dropdown arrow on the right), "Last Name *", "State", "City", "Zip", "Phone Number", "Email ID", "UserName *", "Password *", "Account Number *", "Routing Number *", and "Account Type *". Each field is represented by a rectangular input box. At the bottom of the form, there are two buttons: "Submit" and "Cancel". The form is set against a light blue background.

The main menu shown below helps TIBC Customers to store Customer Bets other relevant information. The data can be edited or new records can be entered as per requirement. This switchboard allows easy navigation across the database and helps track bet details, wins/losses and payouts. The Reports tab generate useful reports for important management decisions and tracking TIBC’s overall performance and popularity.

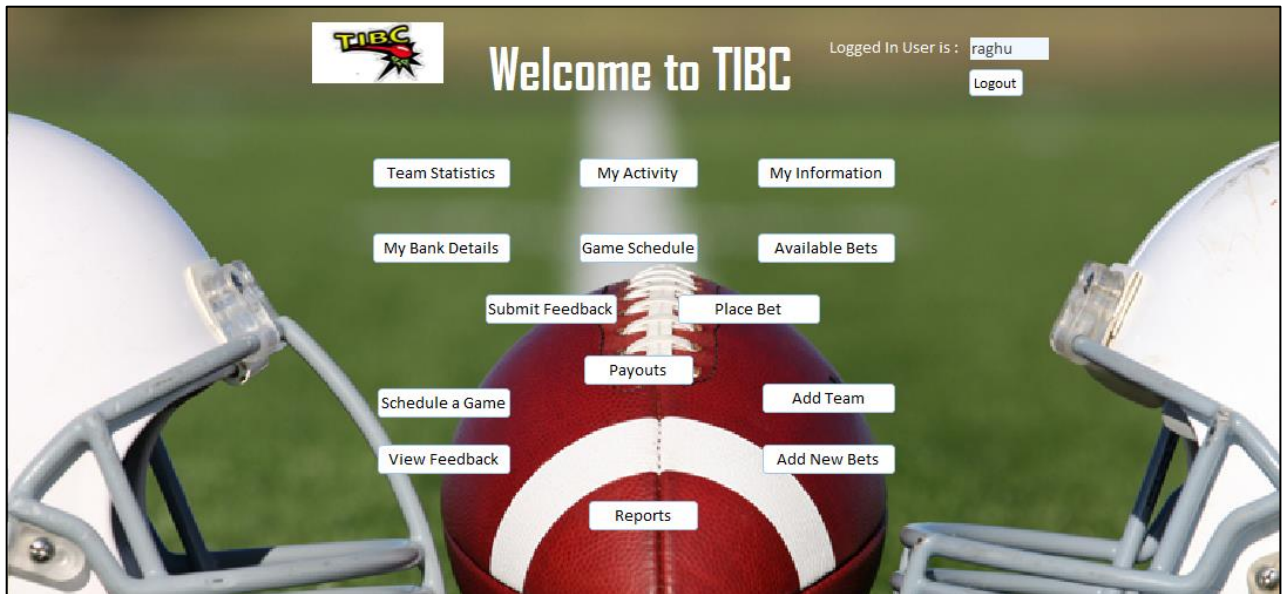
Admin:

For Admin rights, please login using the following credentials:

Username: raghu

Password: password

The following main menu screen will be displayed for the admin:



Customer:

For customer rights login using the following credentials:

Username: kutsal

Password: password

Customers will not have rights to access "Schedule a Game", "Payouts", "Add Team", "View Feedback" and "Reports" forms. The following main menu screen will be displayed for the customers:



10. Data Input and Manipulation Screen Forms

Customer Forms: The “My Personal Information” and “Bank Details” forms allow the customers to see all the customer related information. The “My Personal Information” allows the customers to edit the login information, email id or phone number for that customer only. The “Bank Details” allows the customers to update or add account details for the logged in customer.

My Information Form:

The screenshot displays a web form titled "My Personal Information". The form contains the following fields and values:

Field	Value
First Name	Raghu
Last Name	Reddy
State	Karnataka
City	Bangalore
Zip	585403
Phone Number	9448035361
Email Id	gitecjr@gmail.com
UserName	raghu
Password	*****

At the bottom of the form, there are three buttons: "Update", "Main Menu", and "Close Form".

Bank Details Form:

Bank Details

User name	<input type="text" value="raghu"/>
Account Number	<input type="text" value="166666"/>
Routing Number	<input type="text" value="9009"/>
Account Type	<input type="text" value="savings"/>
Balance	<input type="text" value="123"/>

[Main Menu](#) [◀](#) [Add Account](#) [▶](#) [Close Form](#)

My Activity Form: This form will allow the logged in customers to view their account history including the bet details, payout amount and status.

Account History

Schedule_ID	15
First Name	Raghu
Last Name	Reddy
Bet Date	11/15/2016
Amount	100
Bet Type	Straight Bet
Team Name	Alabama Crimson Tide
UserName	raghu
Score	31
Payout Amount	191
Status	win

[Main Menu](#) [◀](#) [▶](#) [Close Form](#)

Team Statistics: This form provides the customer with the details of teams like “Matches Played”, “Matches Won” and “Matches lost” for each team.

Please select the team

Team_Name

Matches Played

Matches Won

Matches Lost

[Main Menu](#) [Close Form](#)

Place Bet Form: The customers can use the Place bet form to place a bet. This form will include details like User, Available_Bet_Id, Bet_ID, Amount and Bet_Indicator. User can click on the “Refer the form Available bets” link to select the Available_Bet_ID. Following are the “Place Bet” form and “Available Bets” table:

Place Bet:

Place Bet

User

Available_Bet_ID [Refer the form Available bets](#)

Bet_Date

Amount

Bet_Indicator

[Place Bet](#) [Close Form](#) [Main Menu](#)

Available Bets for customer:

Available Bets

Schedule_ID

11

Location

Montgomery

Date

02-11-16

Time

7:00:00 PM

Available bets for a schedule

Available_Bet_ID	Bet_Type	Effective Be	Effective Enc	Odd	Schedule_IT	Team_
8	Total Bet	01-10-16	08-10-16	40	11	Texas A&M Agg
8	Total Bet	01-10-16	08-10-16	40	11	Alabama Crims

Main Menu

◀

▶

Close Form

A negative odd indicates that the home team is favored when determining that outcome of a bet. A positive odd would indicate that the away team was favored.

Game Schedule: This table will display the schedule of football games including the team names, the home flag, location, date and time of the match.

Schedule_Sc	Team_Name	Home_Flag	Location	Date	Time
13	Michigan Wolverines	0	Austin	11/4/2016	7:00 PM
13	Texas Longhorns	1	Austin	11/4/2016	7:00 PM
11	Alabama Crimson Tide	1	Montgomery	11/2/2016	7:00 PM
11	Texas A&M Aggies	0	Montgomery	11/2/2016	7:00 PM
14	Ohio State Buckeyes	0	Dallas	11/7/2016	7:00 PM
14	Texas A&M Aggies	1	Dallas	11/7/2016	7:00 PM
17	Nebraska Corn Huskers	0	Montgomery	11/21/2016	7:00 PM
17	Alabama Crimson Tide	1	Montgomery	11/21/2016	7:00 PM
16	Clemson Tigers	0	Austin	11/23/2016	7:00 PM
16	Texas Longhorns	1	Austin	11/23/2016	7:00 PM
15	Alabama Crimson Tide	0	College Station	11/20/2016	7:00 PM
15	Texas A&M Aggies	1	College Station	11/20/2016	7:00 PM

Add Team Form: This form can be used by the Admin to add the football Teams to the database. This form includes Team details like “Team Name”, “No of Matches Played”, “Number Of Wins” and “Number Of Losses”

Add Team

Team_ID

Team_Name

No_of_Matches_Played

Number_Of_Wins

Number_Of_Losses

Add Team

Close Form

Schedule a game Form: This form can be used by the Admin to add the football match schedule including the location, date, time, status of the match.

Schedule a Game

Schedule_ID

Location

Date

Time

Status

Schedule

Match Details

Close Form

Payouts Form: This table depicts the payout details for any particular Customer_Bet_ID.

Payouts	
Customer_Bet_ID	<input type="text" value="9"/>
Customer_First_Name	<input type="text" value="Raghu"/>
Customer_Last_Name	<input type="text" value="Reddy"/>
Account_Number	<input type="text" value="166666"/>
Routing Number	<input type="text" value="9009"/>
Account_Type	<input type="text" value="savings"/>
Balance	<input type="text" value="123"/>
Bet_Flag	<input type="text" value="win"/>
Payout_Amount	<input type="text" value="191"/>

Feedback Form: This form stores the feedback and ratings provided by customers for their overall experience with TIBC.

Feedback	
User Name	<input type="text" value=""/> ▼
Satisfaction Level	<input type="text" value=""/> ▼
Comments	<input type="text" value=""/> ▲ ▼

The Admin has the rights to view the Customer Feedback by clicking on the “View Feedback” button. The following details will be displayed on the View Feedback table:

View Feedback:

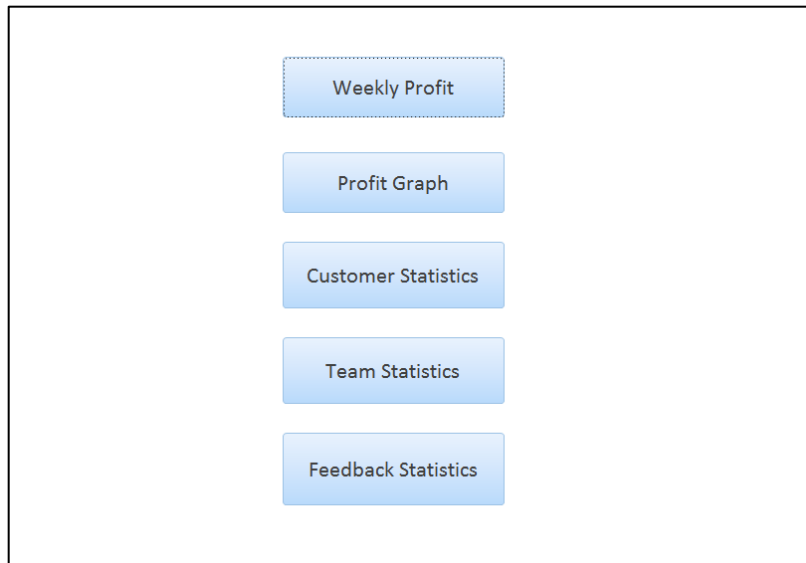
frmMainMenu Relationships frmviewFeedbackadmin				
Cu: ▾	Custon ▾	Custom ▾	Rating ▾	Comments ▾
11	Raghu	Reddy	Satisfied	Services are very good
11	Raghu	Reddy	Extremely Satisfied	TIBC is the best
12	Nupur	Ray	Disappointed	There is a lot of scope of improvemnet
12	Nupur	Ray	Neutral	Services can improve
13	Maitreyi	Telang	Extremely Satisfied	Love TIBC
14	Dylan	Burns	Neutral	Good Services

11. Reports:

The Reports can be accessed by clicking on the “Reports” button present on the main menu as shown in the below screen shot.



Clicking on the “Reports” button will redirect to the list of all the Reports for TIBC. The list of reports will be displayed as follows:



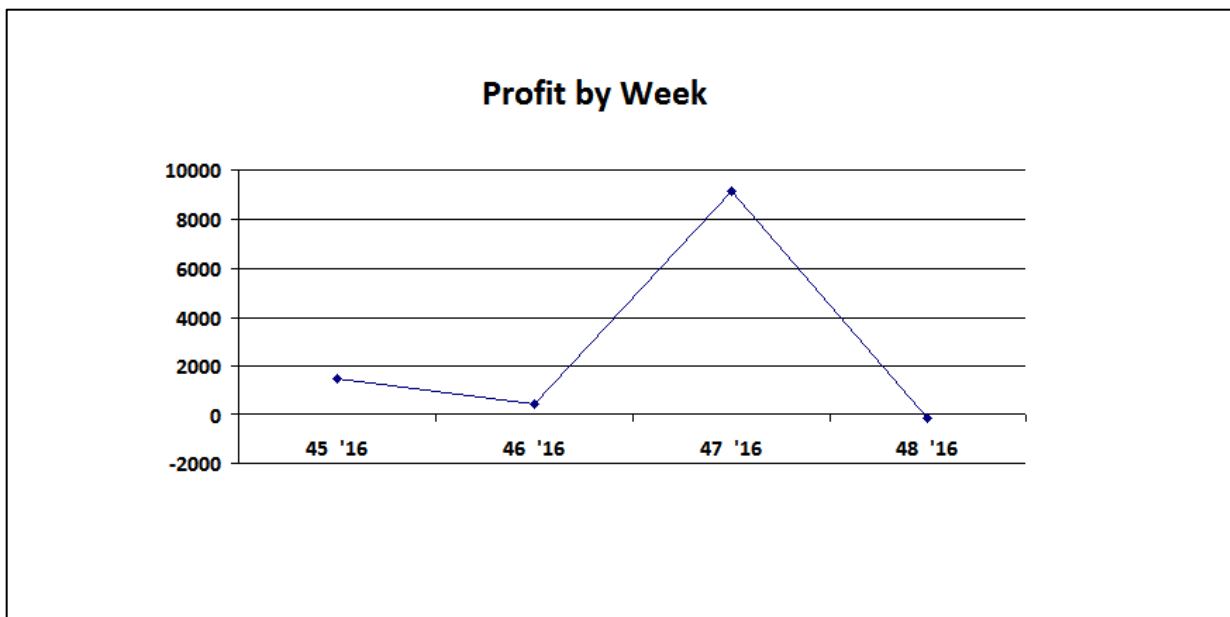
Weekly Profit

This Report generates the weekly profit of TIBC. The following screen shot displays the profit for week 45, 46, 47 and 48 including the bet dates, customer names, amount paid to the customer, profit or loss (displayed in paranthesis) for the customer and the final outcome for the week.

Weekly Profit of the Company				
Week	Bet Date	Amount Bet by Customer	Amount Paid to the Customer	Company Profit
45				
	11/1/2016	\$1,000.00	\$0.00	\$1,000.00
	11/4/2016	\$500.00	\$0.00	\$500.00
				1500
46				
	11/7/2016	\$350.00	\$0.00	\$350.00
	11/12/2016	\$100.00	\$0.00	\$100.00
				450
47				
	11/14/2016	\$10,000.00	\$0.00	\$10,000.00
	11/15/2016	\$3,000.00	\$5,727.27	(\$2,727.27)
	11/15/2016	\$100.00	\$190.90	(\$90.90)
	11/17/2016	\$2,000.00	\$0.00	\$2,000.00
	11/19/2016	\$35.00	\$66.82	(\$31.82)
				9150.01
48				
	11/21/2016	\$150.00	\$286.36	(\$136.36)
				-136.36

Profit Graph

This Report generates the Weekly Profit Graph for TIBC. The following screen shot depicts the profit for week 45, 46, 47 and 48.



Customer Statistics

This Report generates the statistic for all the customers of TIBC. The following screen shot depicts the customer details including the average winnings of the customer, profit off customer, number of bets made and won to name a few. The profit off customer is displayed in closed parenthesis for a loss.

Customer Statistics							
Last Name	First Name	ID	AverageBet	AvgWinnings	Profit Off Customer	BetsMade	BetsWon
Bennet	Rachel	28	\$10,000.00	\$0.00	\$10,000.00	1	
Burns	Dylan	14	\$500.00	\$0.00	\$500.00	1	
Ray	Nupur	12	\$575.00	\$143.18	\$863.64	2	1
Reddy	Raghu	11	\$100.00	\$190.90	(\$90.90)	1	1
Ross	Jim	26	\$35.00	\$66.82	(\$31.82)	1	1
Specter	Donna	29	\$2,000.00	\$0.00	\$2,000.00	1	
Tanner	Michael	27	\$3,000.00	\$5,727.27	(\$2,727.27)	1	1
Telang	Maitreyi	13	\$225.00	\$0.00	\$450.00	2	

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Team Statistics

This Report generates the statistics for the teams including details like matches played, times bet on, average amount bet on the team to name a few.

Team Statistics								
ID	Name	Matches Played	Times BetOn	AvgBetAmount	TotalAmountBet	WonBets	AvgPayOut	TotalPayOut
1	Michigan Wolverines	1						
2	Clemson Tigers	1						
3	Alabama Crimson Tide	3	10	\$1,723.50	\$17,235.00	4	\$1,567.84	\$6,271.35
4	Ohio State Buckeyes	1						
5	Texas A&M Aggies	3	7	\$2,055.00	\$14,385.00	4	\$1,567.84	\$6,271.35
6	Nebraska Corn Huskers	1	3	\$950.00	\$2,850.00			
7	Texas Longhorns	2						
8	Oklahoma Sooners							
9	USC Trojans							
10	LSU Tigers							
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Customer Feedback Statistics

This Report generates the statistics for Customer Feed back including the rating and count of customers for a particular rating.

Customer Feedback Statistics	
Rating	CountOfRating
Disappointed	1 10.00%
Extremely Dissatisfied	1 10.00%
Extremely Satisfied	3 30.00%
Neutral	3 30.00%
Satisfied	2 20.00% 10

12. Contributions

Dylan Burns

- Proposed idea of the Project
- Developed Queries and Reports for Customer Statistics and Team Statistics
- Worked on Data Entry
- Designing ERD
- Designed and developed the database architecture
- Created Relational Database Schema
- Created ERD in Visio

Maitreyi Telang

- Designing ERD
- Worked on Data Entry
- Worked on first draft
- Developed Queries and Reports for Weekly Profit and Customer Feedback Statistics
- Designed and developed the database architecture
- Created Relational Database Schema

Nupur Ray

- Designing ERD
- Worked on Data Entry
- Formatting and aligning forms in Access
- Designed and developed the database architecture
- Created Relational Database Schema
- Finalized Word Report

Raghunandan Reddy Jhampa

- Designing ERD
- Designing forms in Access
- Worked on Data Entry
- Designed and developed the database architecture
- Created Relational Database Schema
- Designed and Created Main Menu, Login Registration and other Forms
- Created ERD in Visio