CPD-3454 Term Project Design Document

# BLACKJACK

## Group Details

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## Basic STEPS

1. Initially call the function or procedure to initialize all the tables, scores.
2. Welcome page “Asks user his user name and password or option to create a new user”
3. Show the users data and option to change password and his score and start playing.
4. Call the procedure “proc\_delete\_cache” to delete all the data in the  drawn\_card\_history table.
5. Call function “get\_card” to return a random suite(heart, spade, club, diamond) and card number (ace, 2-9, jack, queen, king)
6. Check if this card is already in the drawn\_card\_history table and if it is an already drawn card call the function “get\_card” again, until we get a different card.
7. Now insert this card in the drawn\_card\_history table.
8. Call the function “find\_value” to find the value of the card, also check ‘ace’ condition..
9. Call the function “show\_user\_score” when the card point is between 17-21 or over 21, if it satisfies the condition then we ask the next user if he is ready ,and then go to step 2.
10. After we get the dealers score, call the procedure “proc\_show\_winner” and then ask user to play again, if yes then go to step 2.

## TABLES

1.      USERS

2.      CARDS

3.      DRAWN\_CARD\_HISTORY

### USER

DROP TABLE IF EXISTS user;

CREATE TABLE IF NOT EXISTS user(

 id INTEGER(11) NOT NULL PRIMARY KEY AUTO\_INCREMENT,

 name VARCHAR(30) NOT NULL,

 username VARCHAR(30) NOT NULL,

 email VARCHAR(30) NOT NULL,

 password VARCHAR(30) NOT NULL,

 score INTEGER(11) NOT NULL

);

INSERT INTO user(id,name,username, email, password,score) VALUES (1,'user1', 'user1', 'user@gmai.com', 'psw',0);

INSERT INTO user(id,name,username, email, password,,score) VALUES (2,'user2' ,'user2', 'user@gmai.com', 'psw',0);

INSERT INTO user(id,name,username, email, password,,score) VALUES (3,'user3','user3', 'user@gmai.com', 'psw',0);

INSERT INTO user(id,name,username, email, password,,score) VALUES (4,'dealer',' dealer ', dealer @gmai.com', 'psw',0);

-- Initially we are setting 3 players and a dealer, the names will be as above.

### CARDS

-- The Condition for ace will be in the function.

DROP TABLE IF EXISTS card;

CREATE TABLE IF NOT EXISTS card(

 id INTEGER(2) NOT NULL PRIMARY KEY AUTO\_INCREMENT,

name VARCHAR(8),

value INTEGER(3)

);

INSERT INTO card(id,name,value) VALUES (1,'ace',1);

INSERT INTO card(id,name,value) VALUES (2,'two',2);

INSERT INTO card(id,name,value) VALUES (3,'three',3);

INSERT INTO card(id,name,value) VALUES (4,'four',4);

INSERT INTO card(id,name,value) VALUES (5,'five',5);

INSERT INTO card(id,name,value) VALUES (6,'six',6);

INSERT INTO card(id,name,value) VALUES (7,'seven',7);

INSERT INTO card(id,name,value) VALUES (8,'eight',8);

INSERT INTO card(id,name,value) VALUES (9,'nine',9);

INSERT INTO card(id,name,value) VALUES (10,'ten',10);

INSERT INTO card(id,name,value) VALUES (11,'jack',10);

INSERT INTO card(id,name,value) VALUES (12,'queen',10);

INSERT INTO card(id,name,value) VALUES (13,'king',10);

id, name, value

1, 'ace', 1

2, 'two', 2

3, 'three', 3

4, 'four', 4

5, 'five', 5

6, 'six', 6

7, 'seven', 7

8, 'eight', 8

9, 'nine', 9

10, 'ten', 10

11, 'jack', 10

12, 'queen', 10

13, 'king', 10

### DRAWN\_CARDS\_HISTORY

-- This is to save the history for a game

-- Every time we start a new game it deletes all the data in the table

DROP TABLE IF EXISTS DRAWN\_CARD\_HISTORY;

CREATE TABLE IF NOT EXISTS DRAWN\_CARD\_HISTORY(

 name VARCHAR(5) NOT NULL PRIMARY KEY,

 symbol VARCHAR(9)

);

Example:- data will look like

name, symbol

'ace',  'heart'

'two',  'club'

'seven',  'spade'

'two',  'diamond'

'king',  'heart'

# **Sequence Diagram of the simulation**

