

# Coder Academy Roulette

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& Bruce McClure

• *6 March 2019*

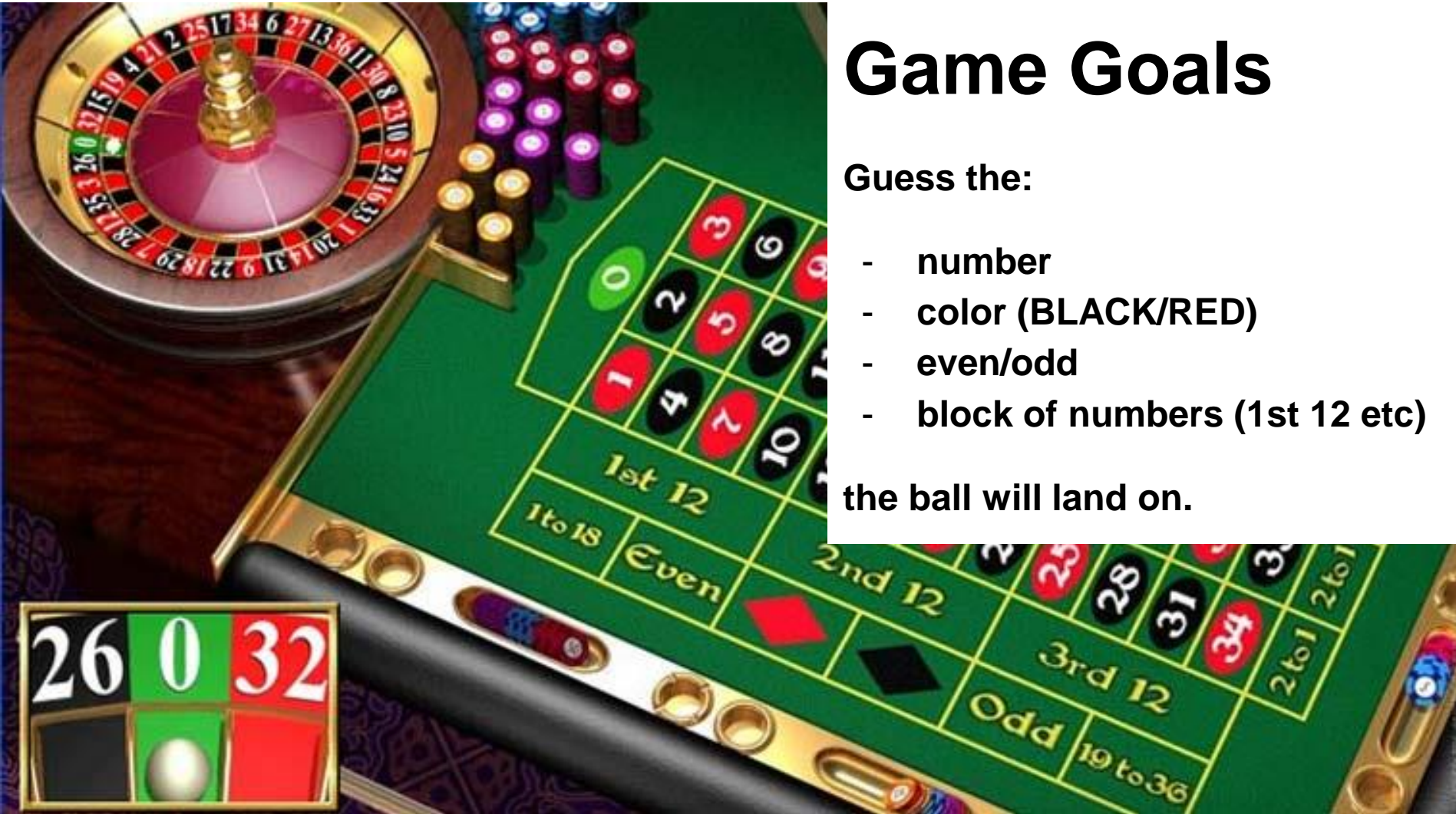


# Game Goals

Guess the:

- number
- color (BLACK/RED)
- even/odd
- block of numbers (1st 12 etc)

the ball will land on.



37 Numbers (inc. zero)

2 Colors (RED/BLACK)

1 Bet placed

1 Wheel spin

the absolute basics of the game, then

# Probability and Payouts

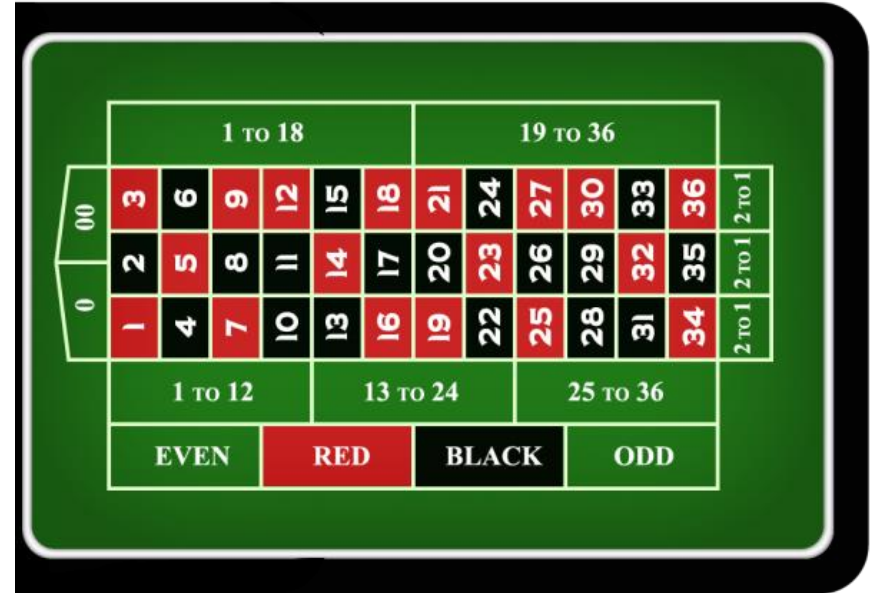
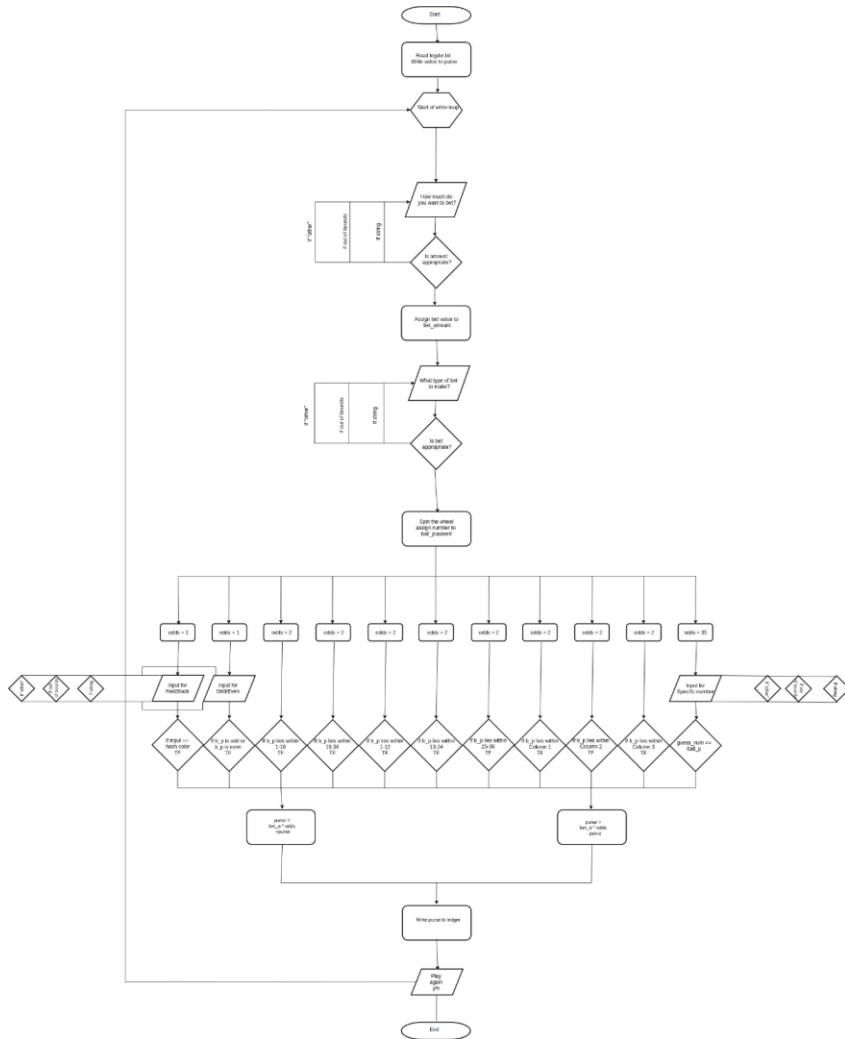
In the game of roulette, there are two main groups of bets – Outside Bets and Inside Bets. The names are derived from the bet positions on the layout of the table. Outside bets have higher chances of winning, but much smaller payouts. Inside bets, on the other hand, have less probability of winning, but considerably bigger payouts. Check out the table we've prepared for the percentages for each bet you can place on roulette.

Odds & Payouts at European & American Roulette			
Roulette Bet	Payout	European Roulette Odds	American Roulette Odds
<i>Single Number</i>	35 to 1	2.70%	2.60%
<i>2 Number Combination</i>	17 to 1	5.4%	5.3%
<i>3 Number Combination</i>	11 to 1	8.1%	7.9%
<i>4 Number Combination</i>	8 to 1	10.8%	10.5%
<i>5 Number Combination</i>	6 to 1	13.5%	13.2%
<i>6 Number Combination</i>	5 to 1	16.2%	15.8%
<i>Column</i>	2 to 1	32.40%	31.6%
<i>Dozen</i>	2 to 1	32.40%	31.6%
<i>Even/Odd</i>	1 to 1	48.60%	47.4%
<i>Red/Black</i>	1 to 1	48.60%	47.4%
<i>Low/High</i>	1 to 1	48.60%	47.4%



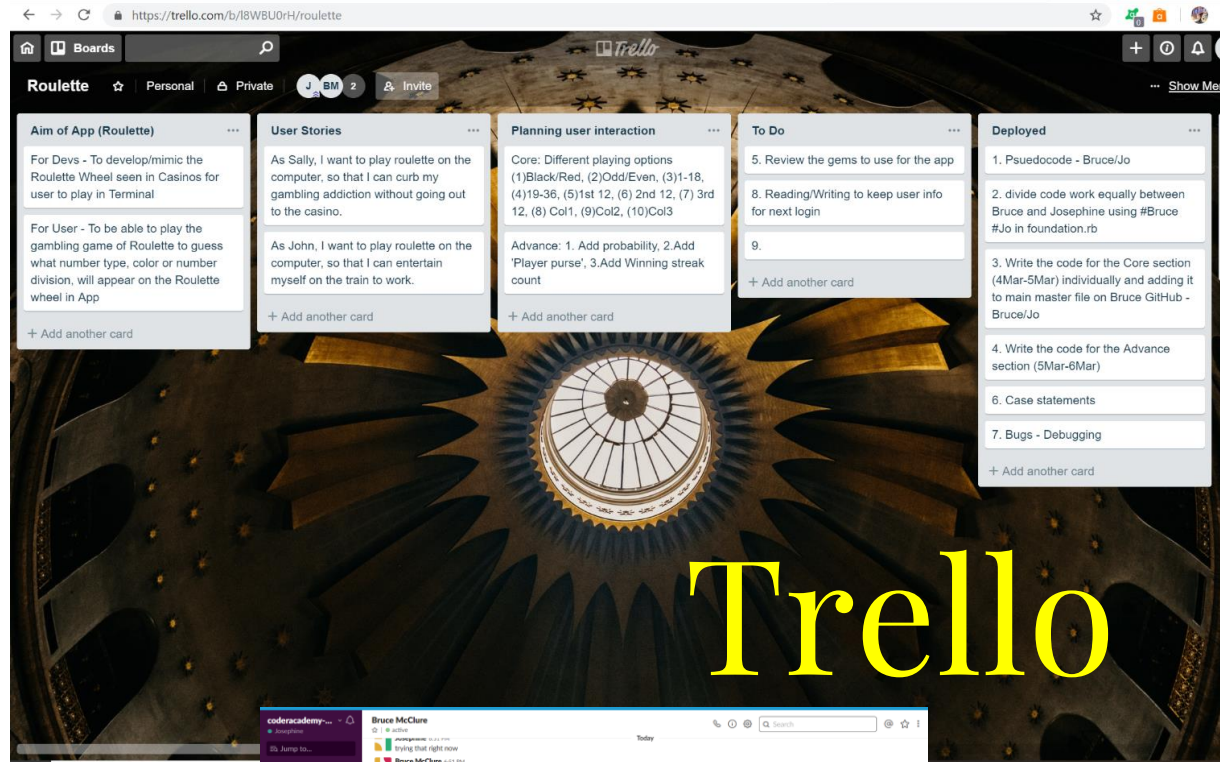
## A large 'case' statement with nested 'while' loops to limit user input to valid data types

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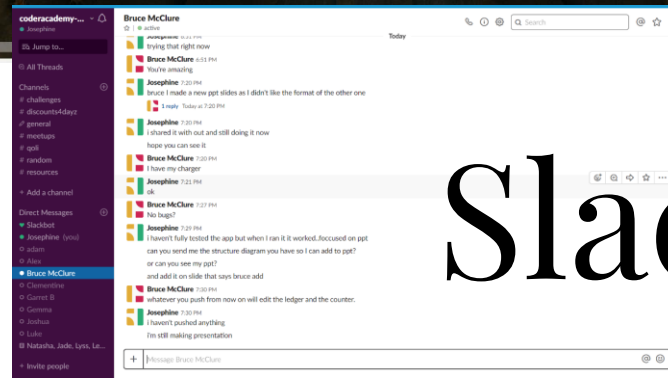


# Project managment of designing and making the Roulette App

48 hours from 5 Mar – 6 Mar  
10:00pm



# Trello



# Slack

jo@DESKTOP-S0IUGT4: ~/PROJECTS/Rou\_test

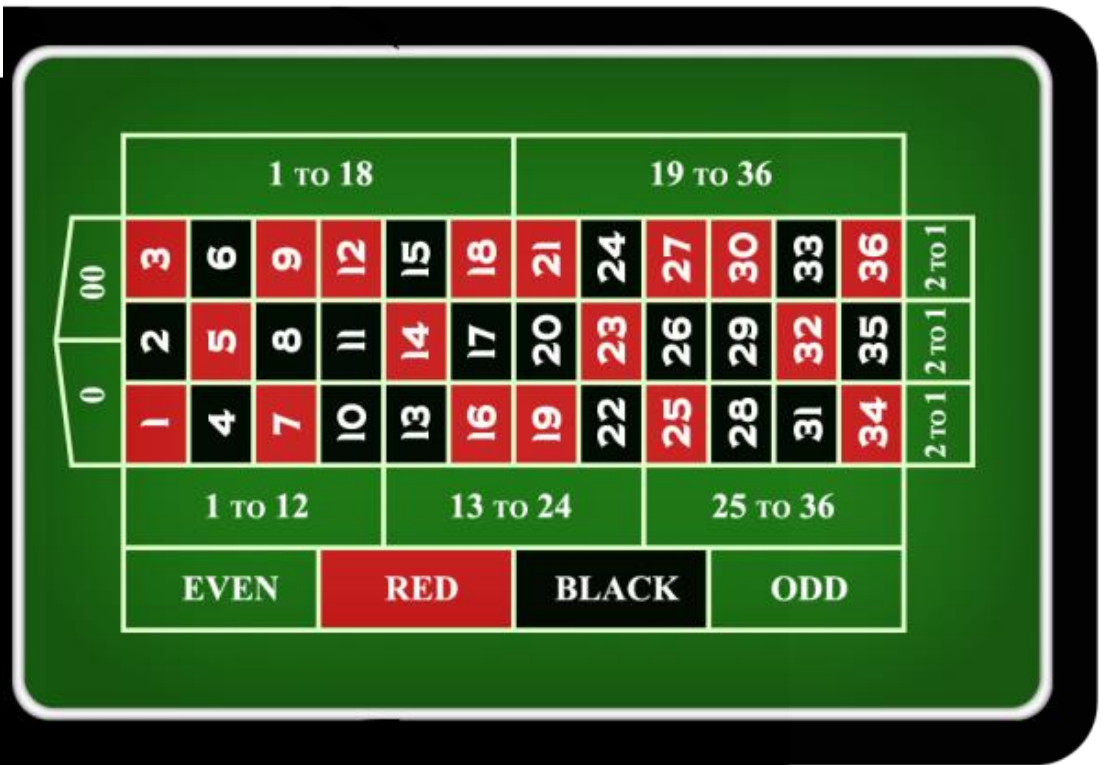
Welcome to the CoderAcademy Roulette Game

Your current balance is \$100.0

Below are the types of bets you can make

- 1) Red or Black
- 2) Odd or Even
- 3) 1-18
- 4) 19-36
- 5) 1st Dozen (1-12)
- 6) 2nd Dozen (13-24)
- 7) 3rd Dozen (25-36)
- 8) Column 1
- 9) Column 2
- 10) Column 3
- 11) Single number

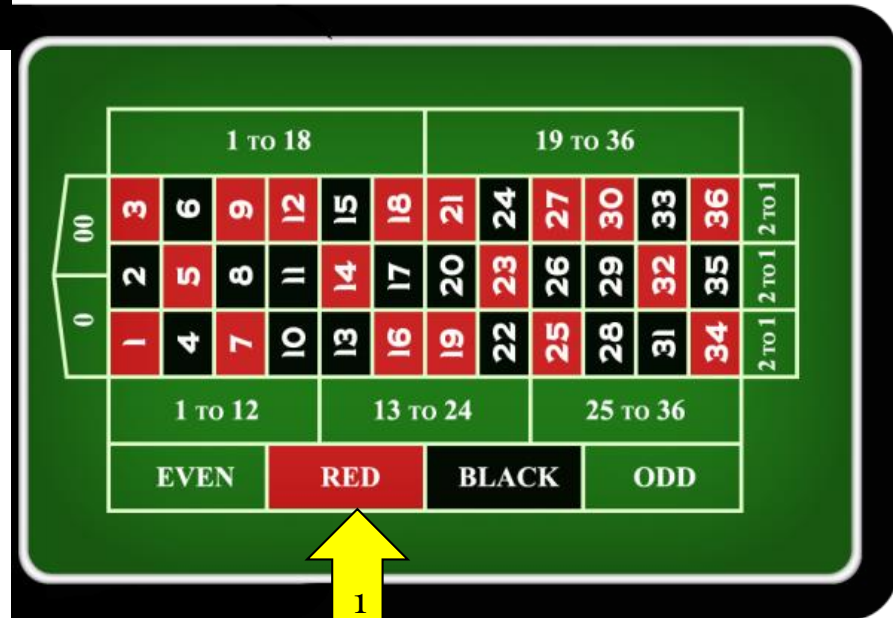
What type of bet would you like to make? Please select from the numbers above:



Playing the Roulette App Game!

```
jo@DESKTOP-S0IUGT4: ~/PROJECTS/Rou_test
You have selected a 'Red or Black' type bet
You currently have 100.0
How much would you like to bet?
```

```
jo@DESKTOP-S0IUGT4: ~/PROJECTS/Rou_test
You have selected a 'Red or Black' type bet
You currently have 100.0
How much would you like to bet?
1
You're betting $1.0
What color would you like to bet on?
Enter '1' for Red or '2' for Black
```





jo@DESKTOP-S0IUGT4: ~/PROJECTS/Rou\_test

You have selected a 'Red or Black' type bet

You currently have 100.0

How much would you like to bet?

1

You're betting \$1.0

What color would you like to bet on?

Enter '1' for Red or '2' for Black

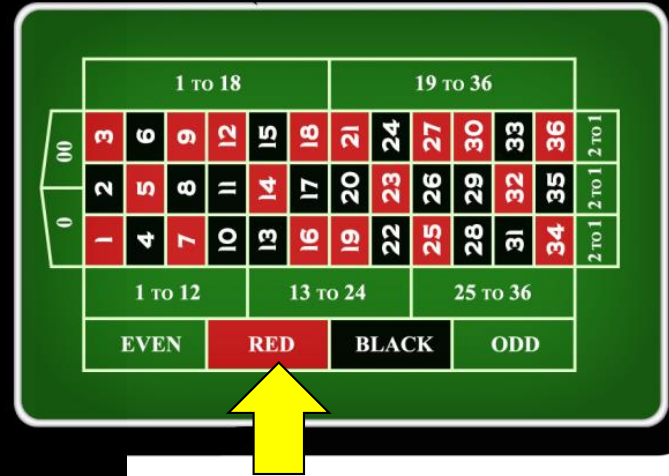
1

the ball landed on 34, Red

Congratulations!!! You won \$1.0

your purse is now \$101.0

Would you like to play again? 'yes' = y , 'Exit' = any other key



**Gaming addiction count limit set at 10 PLAYS!**

# DEBUGGING the APP!

Manual\_Testing\_Roulette\_App - Excel

Josephine Chong

Manual Testing done with an excel spreadsheet, over all user input possibilities.

D64	A	B	C	D	E	F
1	ID	Feature ID	Feature	Check feature for	Test Data/Types	Expected Result
2	1	1	"What type of bet would you like to make?"	Looping if input is not a number between 1-11	@%#&\$%	Display error message
3	1	2	"What type of bet would you like to make?"	Looping if input is not a number between 1-11	string	Displayed error message
4	1	3	"What type of bet would you like to make?"	Looping if input is not a number between 1-11	-2	Displayed error message
5	1	4	"What type of bet would you like to make?"	Looping if input is not a number between 1-11	3	Go to next user question
6	1	5	"What type of bet would you like to make?"	Looping if input is not a number between 1-11	Display error message	Went to next user question
7	1	6	"What type of bet would you like to make?"	Looping if input is not a number between 1-11	12	Displayed error message
8	2	1	"How much would you like to bet?"	Needs to be loop for incorrect input	@%#&\$%	Displayed error message
9	2	2	"How much would you like to bet?"	Needs to be loop for incorrect input	string	Displayed error message
10	2	3	"How much would you like to bet?"	Needs to be loop for incorrect input	1.00	Went to next user question
11	2	4	"How much would you like to bet?"	Needs to be loop for incorrect input	-30	Displayed error message
12	2	5	"How much would you like to bet?"	Needs to be loop for incorrect input	Display error message	Displayed error message
13	2	6	"How much would you like to bet?"	Needs to be loop for incorrect input	100000 (value over the player's purse)	Displayed error message
14	3	1	(1) red or black	Needs to be loop for incorrect input	@%#&\$%	Displayed error message
15	3	2	(1) red or black	Needs to be loop for incorrect input	string	Displayed error message
16	3	3	(1) red or black	Needs to be loop for incorrect input	-2	Displayed error message
17	3	4	(1) red or black	Needs to be loop for incorrect input	3	Displayed error message
18	3	5	(1) red or black	Needs to be loop for incorrect input	Display error message	Displayed error message
19	3	6	(1) red or black	Needs to be loop for incorrect input	1	Go to next user question
20	3	7	(1) red or black	Needs to be loop for incorrect input	2	Went to next user question
21	3	8	(1) red or black	Needs to be loop for incorrect input	red	Displayed error message
22	3	9	(1) red or black	Needs to be loop for incorrect input	Black	Displayed error message
23	4	1	(2) odd or even	Needs to be loop for incorrect input	@%#&\$%	Displayed error message
24	4	2	(2) odd or even	Needs to be loop for incorrect input	string	Displayed error message
25	4	3	(2) odd or even	Needs to be loop for incorrect input	-2	Displayed error message
26	4	4	(2) odd or even	Needs to be loop for incorrect input	3	Displayed error message
27	4	5	(2) odd or even	Needs to be loop for incorrect input	Display error message	Displayed error message
28	4	6	(2) odd or even	Needs to be loop for incorrect input	1	Go to next user question
29	4	7	(2) odd or even	Needs to be loop for incorrect input	2	Went to next user question
30	4	8	(2) odd or even	Needs to be loop for incorrect input	odd	Displayed error me
31	4	9	(2) odd or even	Needs to be loop for incorrect input	ODDS	Display error me
32	4	10	(2) odd or even	Needs to be loop for incorrect input	even	Display error me
33	5	1	(3) 1-18	Doesn't have incorrect input	(input would be from ID 1)	Go to next user q
34	6	1	(4) 19-36	Doesn't have incorrect input	(input would be from ID 1)	Go to next user q
35	7	1	(5) 1st Dozen (1-12)	Doesn't have incorrect input	(input would be from ID 1)	Go to next user q
36	8	1	(6) 2nd Dozen (13-24)	Doesn't have incorrect input	(input would be from ID 1)	Go to next user q
37	9	1	(7) 3rd Dozen (25-36)	Doesn't have incorrect input	(input would be from ID 1)	Go to next user q
38	10	1	(8) Column 1	Doesn't have incorrect input	(input would be from ID 1)	Go to next user q
39	11	1	(9) Column 2	Doesn't have incorrect input	(input would be from ID 1)	Go to next user q
40	12	1	(10) Column 3	Doesn't have incorrect input	(input would be from ID 1)	Go to next user q
41	13	1	(11) Single number	Needs to be loop for incorrect input	"@%#&\$%"	Display error me
42	13	2	(11) Single number	Needs to be loop for incorrect input	"string"	Display error me
43	13	3	(11) Single number	Needs to be loop for incorrect input	"-2"	Display error me
44	13	4	(11) Single number	Needs to be loop for incorrect input	37	Displayed error message
45	13	5	(11) Single number	Needs to be loop for incorrect input	Display error message	Displayed error message
46	13	6	(11) Single number	Needs to be loop for incorrect input	0	Go to next user question
47	13	7	(11) Single number	Needs to be loop for incorrect input	1	Went to next user question
48	13	8	(11) Single number	Needs to be loop for incorrect input	36	Went to next user question
49	13	9	(11) Single number	Needs to be loop for incorrect input	20	Went to next user question
50	14	1	App aesthetics - Typos	Any spelling mistakes	Re position "S" to front of money amount (e.g. "100\$" to "\$100")	Update typo
51	14	2	App aesthetics - Typos	Any spelling mistakes	Change "Reble" to "Rebel"	Updated Typo
52						

# Future development of the Roulette App

## Adding:

- More user **experience aesthetics** (i.e. **gems** to highlight when the game has been won or loss.)
- **Username** (and password) for users
- Make it a **multiplayer** game
- An **animation** of a spin before the randomised number is displayed
- Add an **AGE LIMIT restriction** similar to casinos (only person over 16yr) to prevention of developing bad addictive gambling habits





# Social Implications of the App!

**GAMBLING** is an **ADDICTIVE**  
**HOBBY/SPORT** therefore please  
**PLAY RESPONSIBLY!**

SEEK assistance through this hotline (1800 858 858) if  
you have an addiction problem!!





**Thank you for listening!**