PDA Evidence for Project Unit
Verity Ashforth
E19

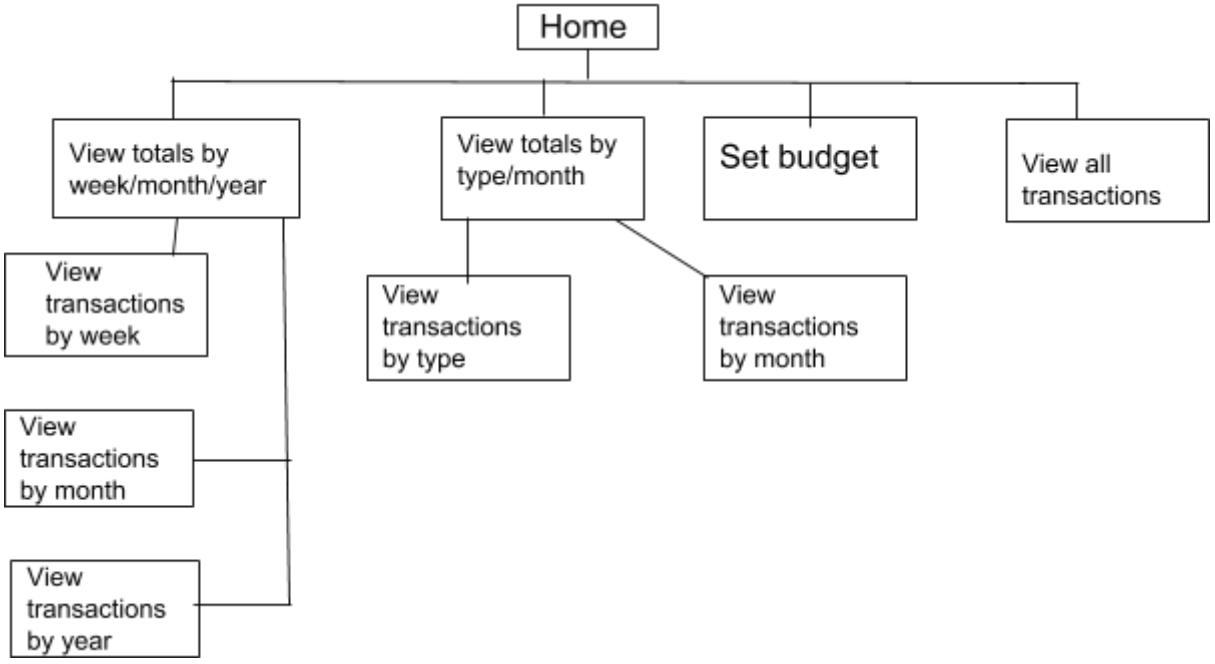
P1 Github Contributors Page

P2 Project Brief

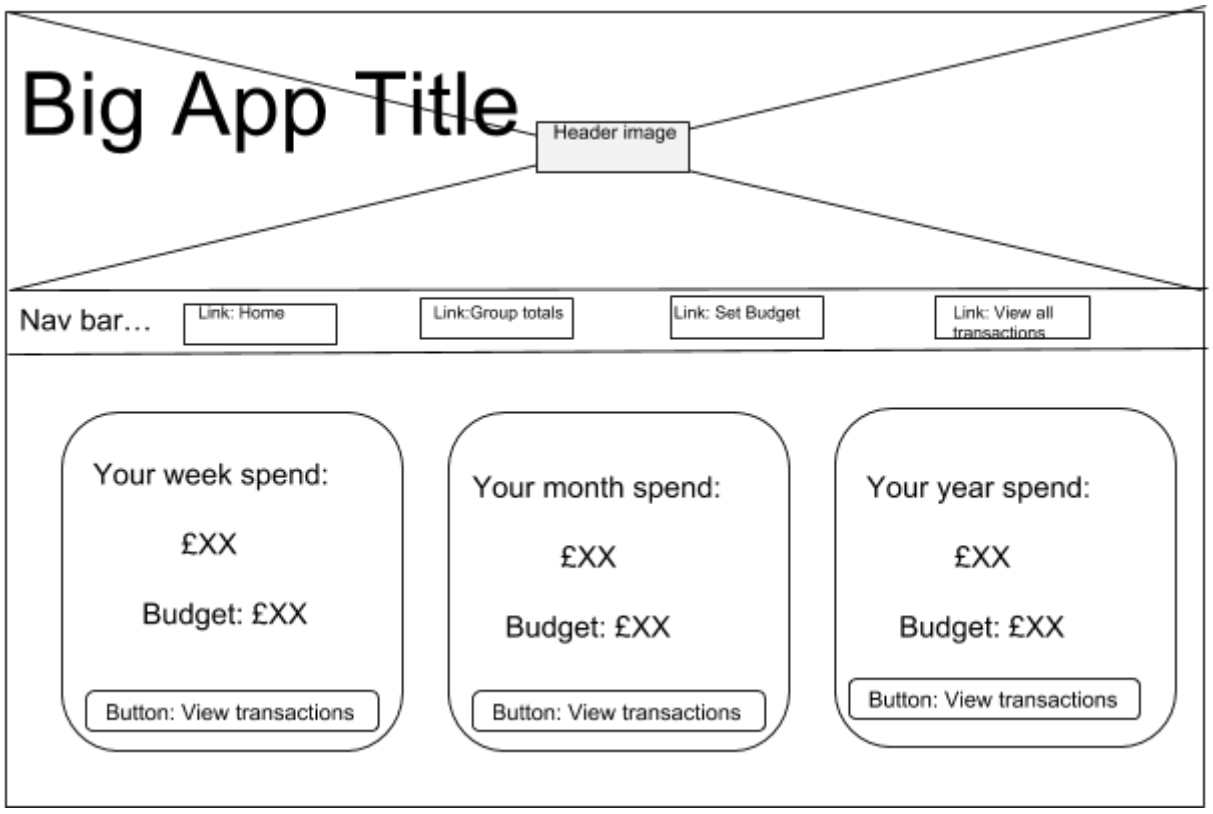
P3 Use of Trello

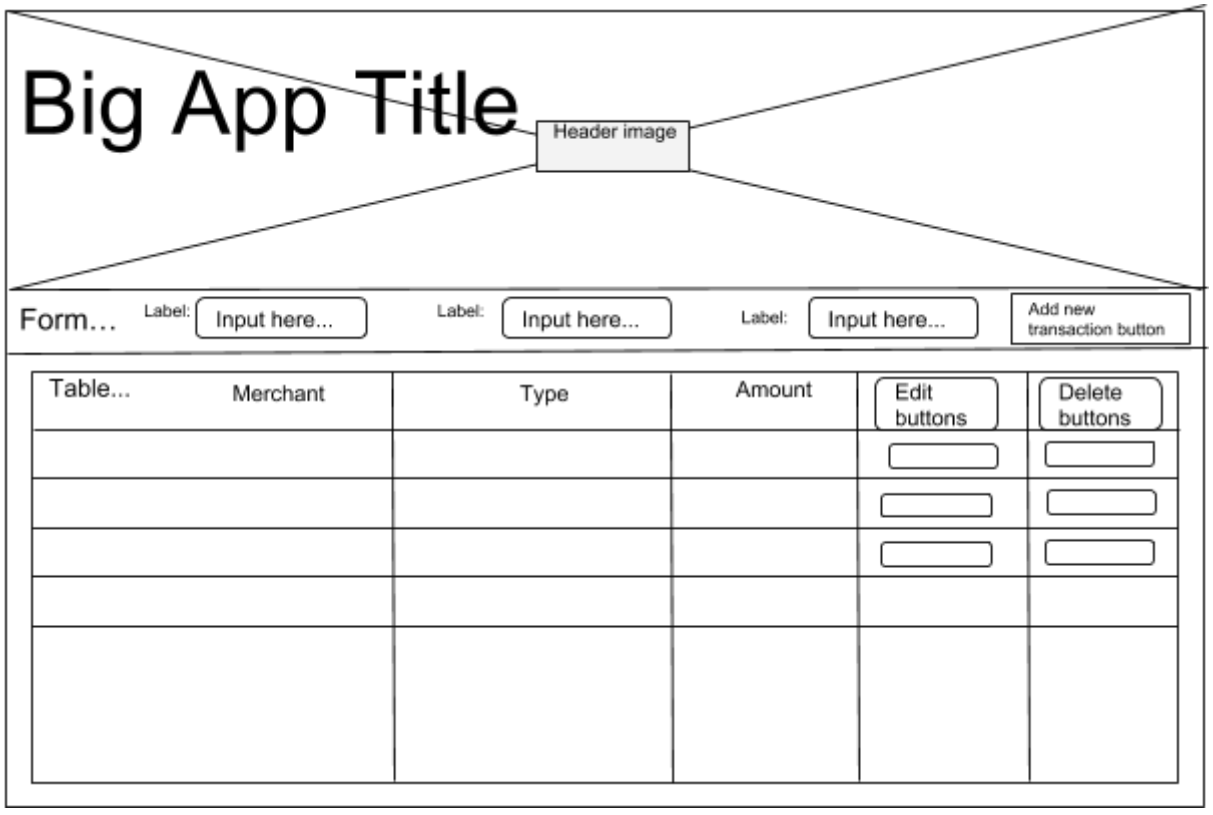
P4 Acceptance Criteria

P5 User Sitemap



P6 Wireframes Design





P7 System Interactions Diagram

P8 Two Object Diagrams

P9 Choice of Two Algorithms

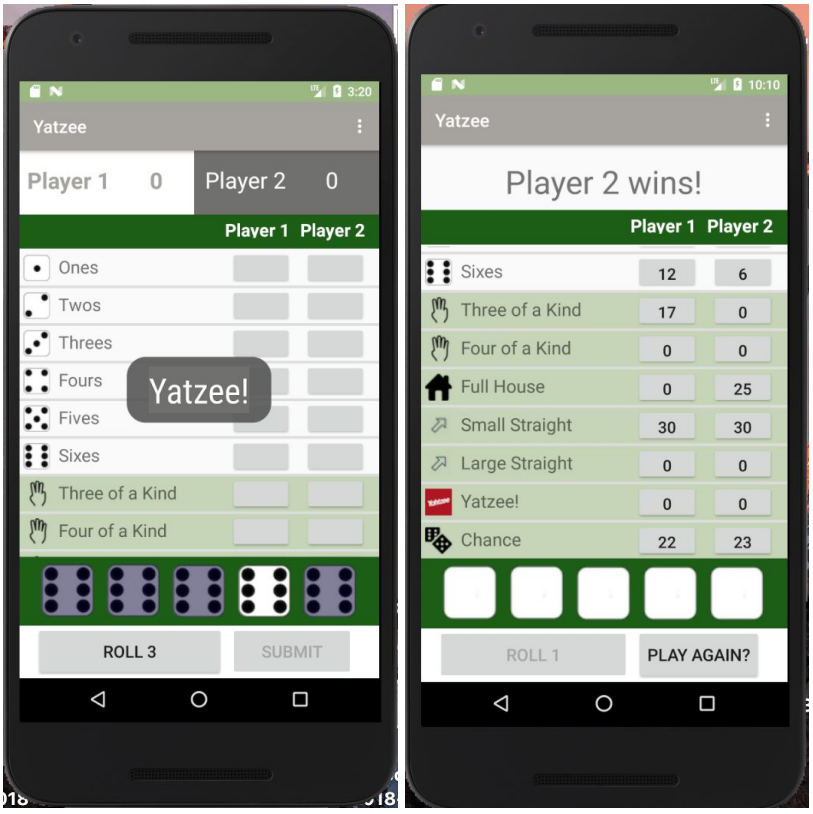
P10 Example of Pseudocode

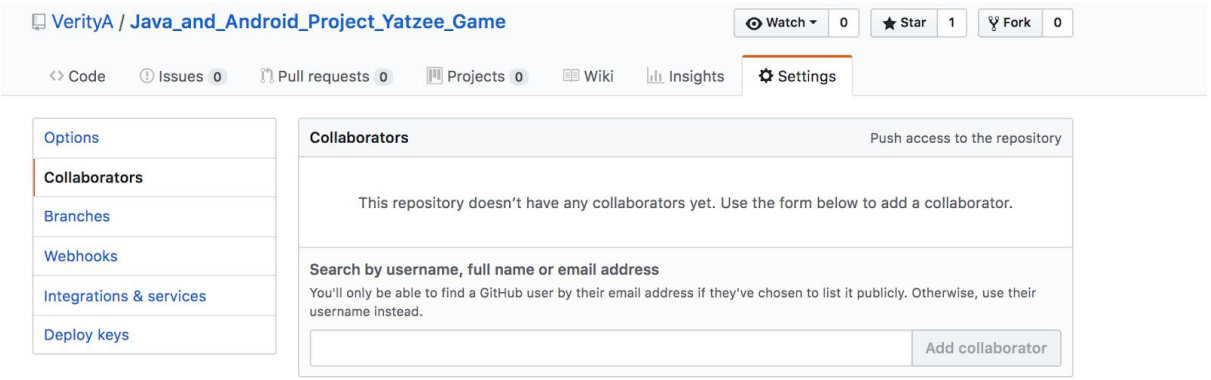
```
# pseudocode:

# def order_transactions_by_amount
#   the method should accept an array of transactions and a direction to ordery by
#   for example the array could be all transactions from the month of May
#   for example the direction could be ascending order
#   the transactions should be ordered by the transaction amount in ascending order as default
#   if the direction specified is descending then the sorted array should be reversed
#   the method should return the array
# end
```

P11 Github Link to a Project

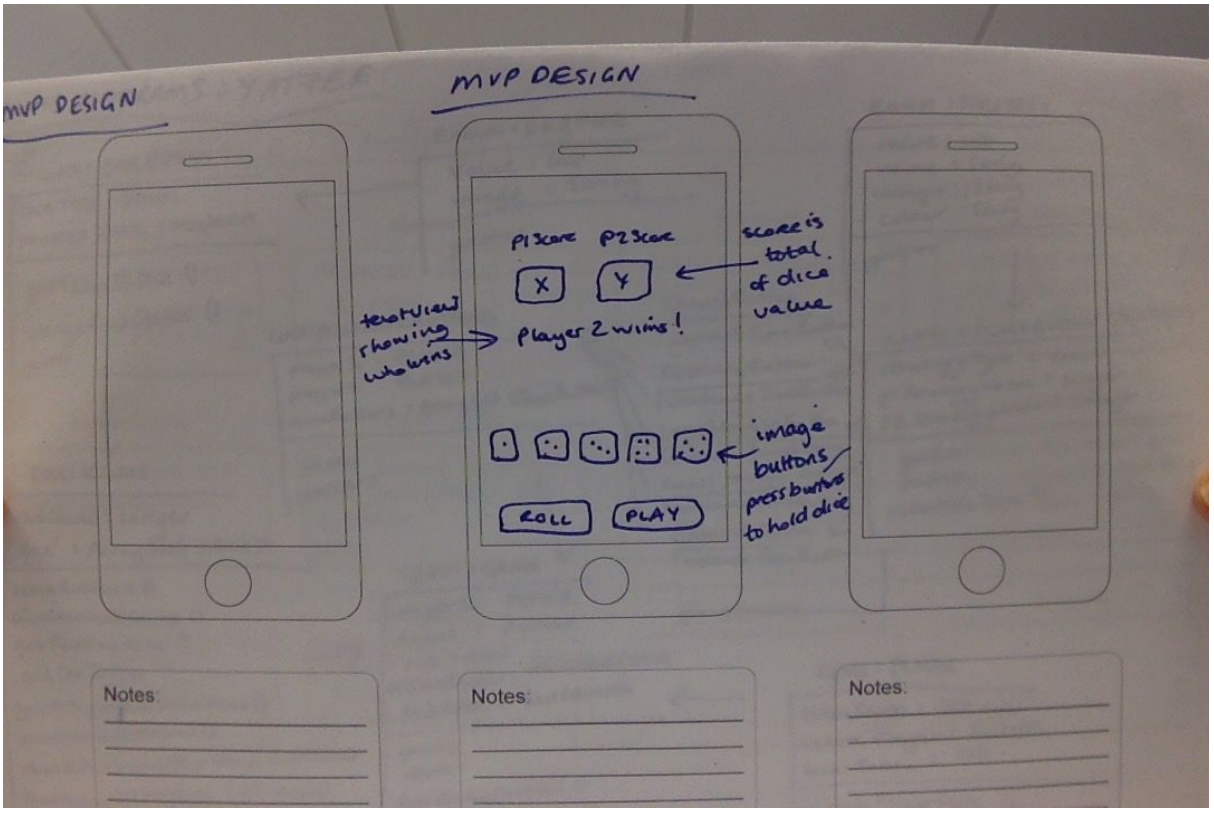
Screenshots of individual Yahtzee project:

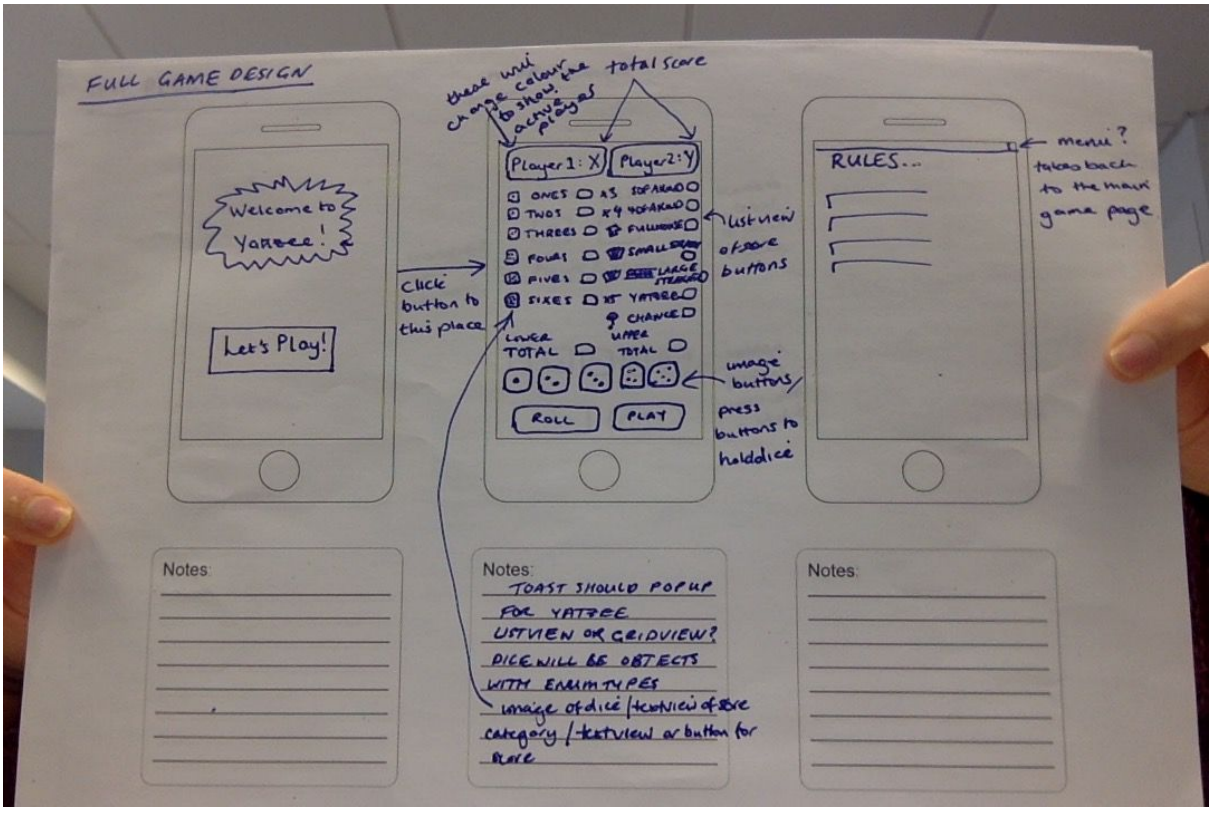


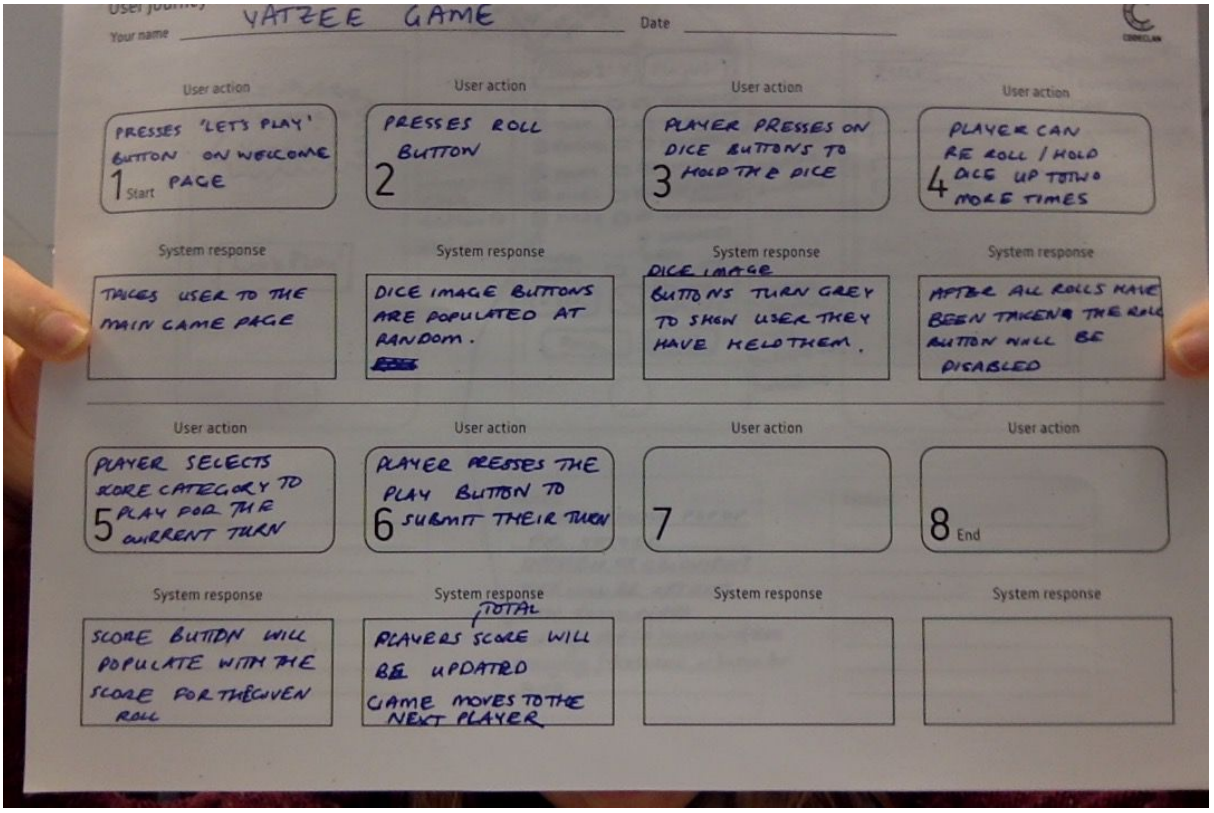


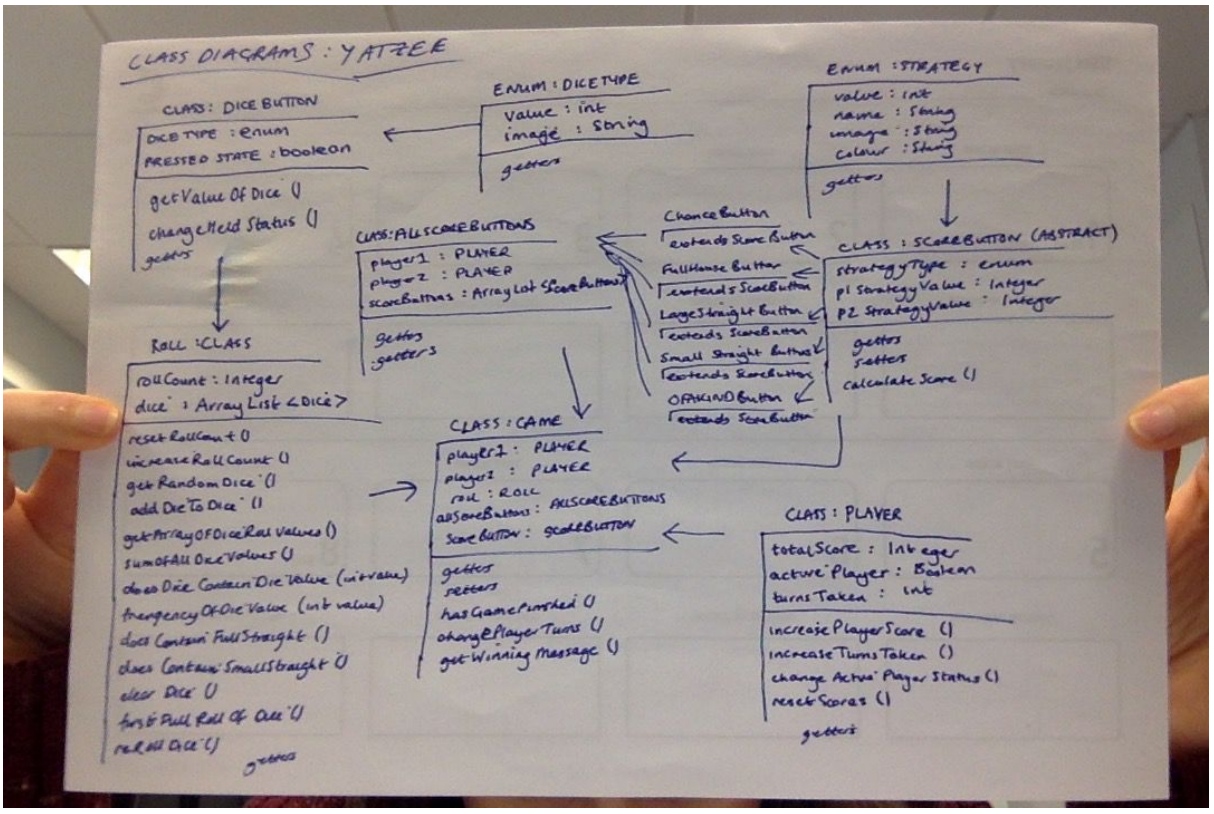
Link to project: https://github.com/VerityA/Java_and_Android_Project_Yatzee_Game

P12 Screenshot of Planning and the Different Stages of Development to Show Changes



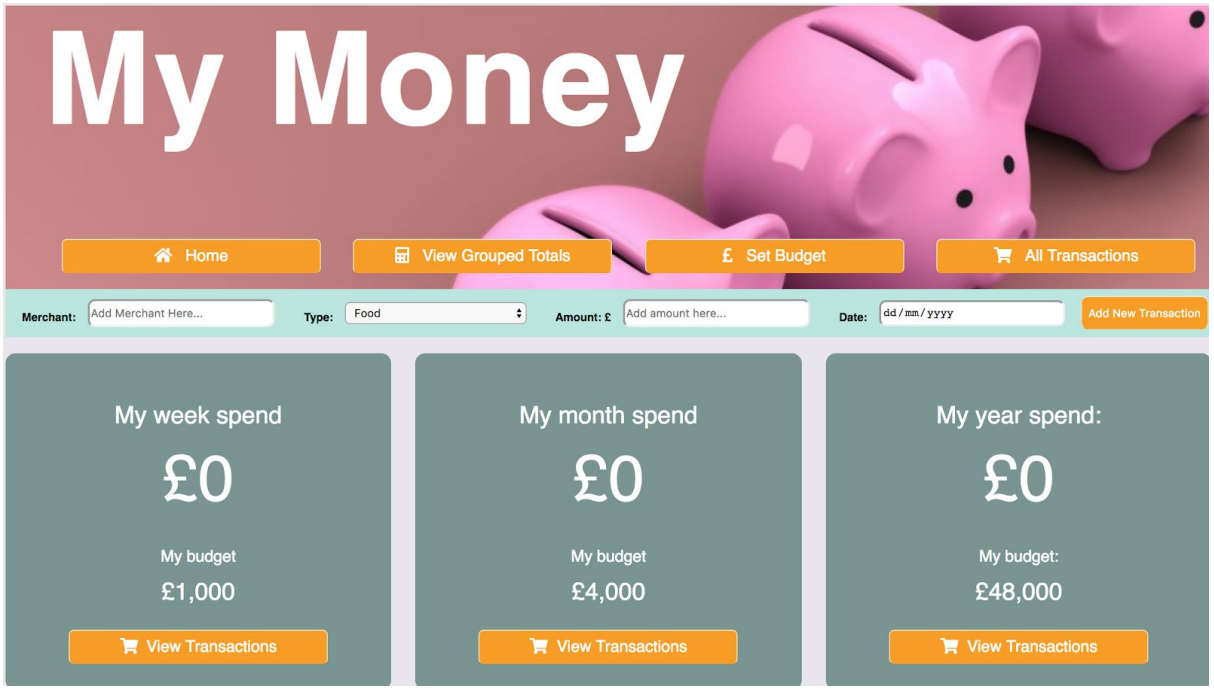

FULL GAME DESIGN
these will change colour to show active player
total score
Player 1: X
Player 2: Y
ONES
TWOS
THREES
FOURS
FIVES
SIXES
3 OF A KIND
4 OF A KIND
FULL HOUSE
SMALL STRAIGHT
LARGE STRAIGHT
YATZEE
CHANCE
LOWER TOTAL
UPPER TOTAL
ROLL
PLAY
list view of score buttons
image buttons
press buttons to hold dice
click button to this place
Welcome to Yatzee!
Let's Play!
RULES...
menu? takes back to the main game page
Notes:
Notes:
TOAST SHOULD POPUP FOR YATZEE
LISTVIEW OR GRIDVIEW?
DICE WILL BE OBJECTS WITH ENUM TYPES
- image of dice / textview of score category / textview or button for score
Notes:


YATZEE GAME
Your name
Date
User action
PRESSES 'LETS PLAY' BUTTON ON WELCOME PAGE
1 Start
System response
TAKES USER TO THE MAIN GAME PAGE
User action
PRESSES ROLL BUTTON
2
System response
DICE IMAGE BUTTONS ARE POPULATED AT RANDOM.
User action
PLAYER PRESSES ON DICE BUTTONS TO HOLD THE DICE
3
System response
DICE IMAGE BUTTONS TURN GREY TO SHOW USER THEY HAVE HELD THEM.
User action
PLAYER CAN RE ROLL / HOLD DICE UP TO TWO MORE TIMES
4
System response
AFTER ALL ROLLS HAVE BEEN TAKEN THE ROLL BUTTON WILL BE DISABLED
User action
PLAYER SELECTS SCORE CATEGORY TO PLAY FOR THE CURRENT TURN
5
System response
SCORE BUTTON WILL POPULATE WITH THE SCORE FOR THE GIVEN ROLL
User action
PLAYER PRESSES THE PLAY BUTTON TO SUBMIT THEIR TURN
6
System response
TOTAL
PLAYERS SCORE WILL BE UPDATED
GAME MOVES TO THE NEXT PLAYER
User action
7
System response
User action
8 End
System response

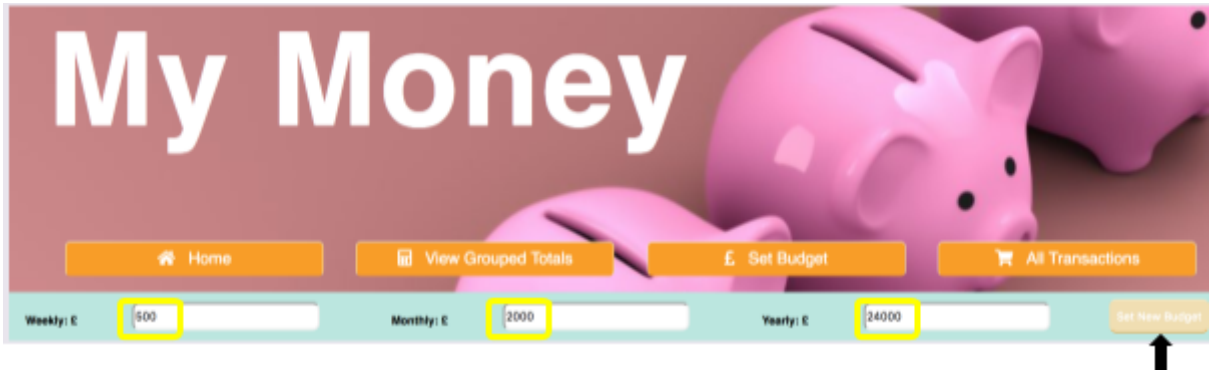


P13 User Input

Below is a screenshot of the homepage of my My Money budgeting app. The weekly, monthly and yearly budgets are currently set to be £1000, £4000 and £48,000 respectively.



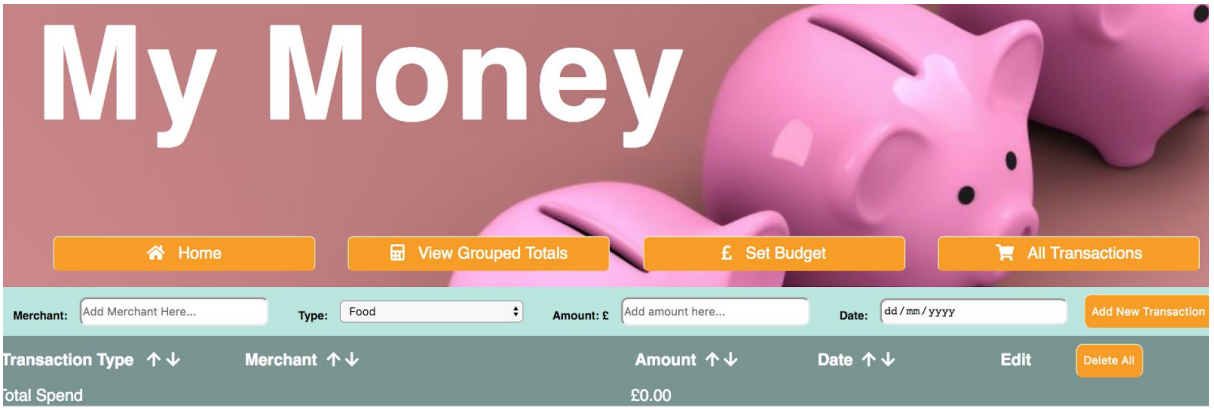
The user can input new weekly, monthly and yearly budgets as shown in the highlighted boxes. The user can then press on the ‘Set New Budget’ button to apply the new budgets.



Below is a snapshot of the homepage with the changed budgets.

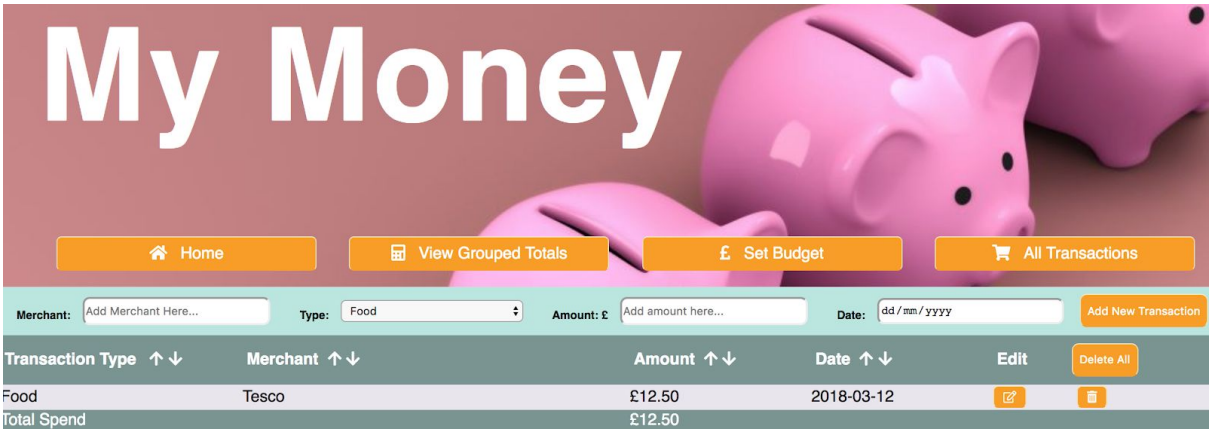
P14 Interaction with Data Persistence

This is the ‘All Transactions’ page. Currently there are no transactions.



I can add a new transaction by inputting a merchant name, a transaction type, a transaction amount and the transaction date. Here we are inputting Tesco, Food, £12.50 and 12/03/2018.

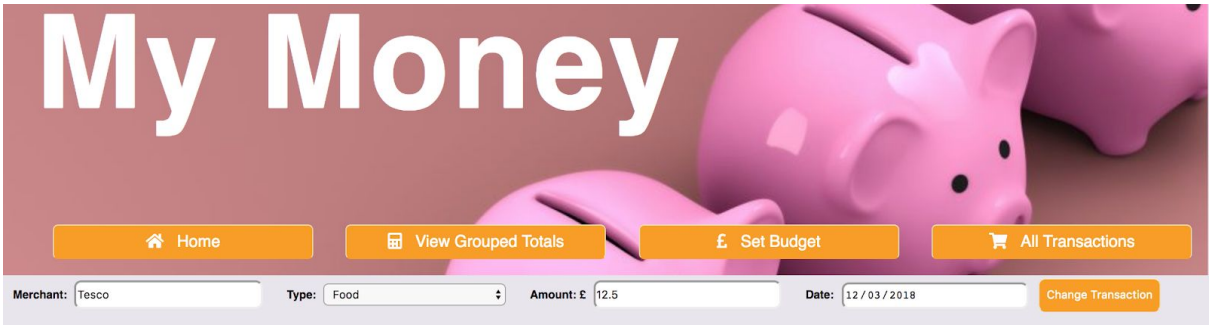
Below is the All Transaction page with the new transaction listed.



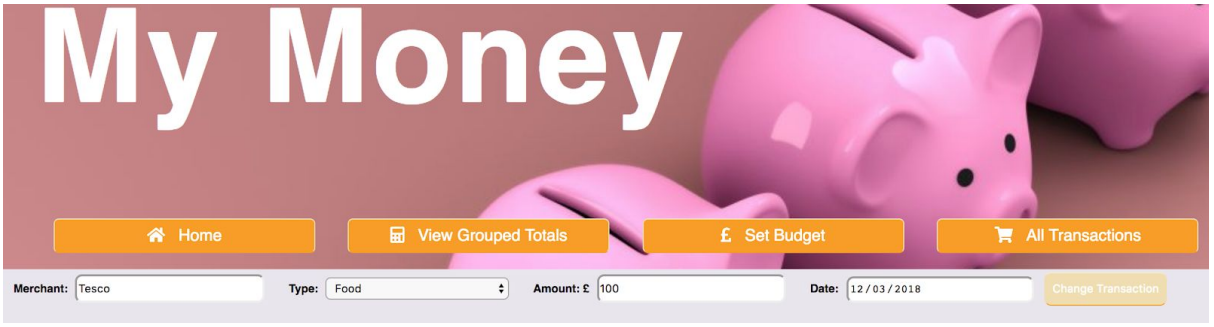
P15 User Output Result

If you put the new transaction in wrongly you can edit the transaction by pressing the Edit button, pointed below.

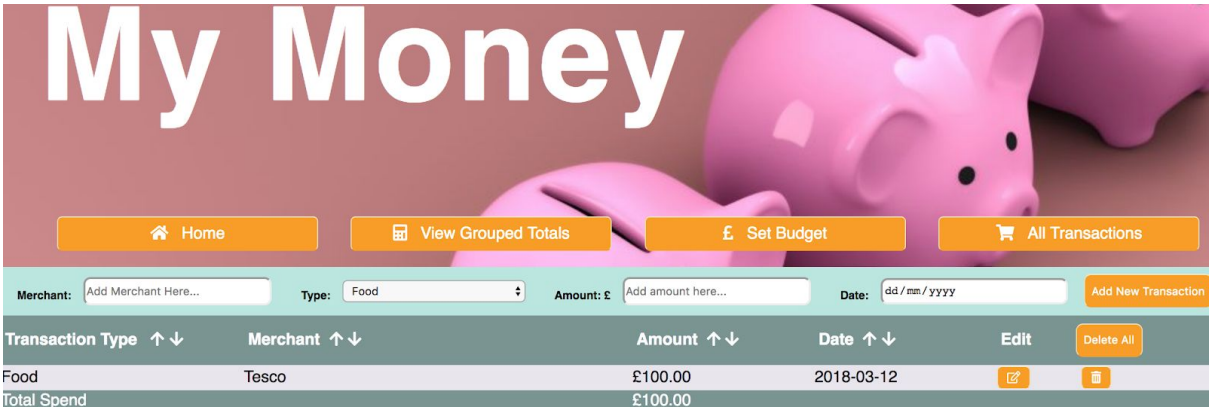
The transaction details will be pre-populated ready to be edited.



We can change any of the values. Here we will change the transaction amount to £100 and press the Change Transaction button:



The page then re-directs to the All Transactions page where we can see the amount has changed to £100 as expected.



P16 Show An API Being Used In Your Program

P17 Bug Tracking Report Showing the Errors Diagnosed and Corrected

P18 Testing Your Program

Code being tested:

```
require_relative('card.rb')
class CardGame


  def checkforAce(card)
    if card.value = 1
      return true
    else
      return false
    end
  end

  dif highest_card(card1 card2)
  if card1.value > card2.value
    return card.name
  else
    card2
  end
end
end

def self.cards_total(cards)
  total
  for card in cards
    total += card.value
    return "You have a total of" + total
  end
end
```

Ruby Dynamic Tests Tasks

First test for checking an ace will true and false:

task1.rb task2.rb

```ruby
require('minitest/autorun')
require_relative('task2.rb')


class Task2Test < MiniTest::Test

  def setup
    @card1 = Card.new("ace", 1)
    @card2 = Card.new("jack", 11)
    @card_game = CardGame.new()
  end

def test_check_for_ace_is_ace
  assert_equal(true, @card_game.checkforAce(@card1))
end

def test_check_for_ace_is_not_ace
  assert_equal(false, @card_game.checkforAce(@card2))
end




end
```

Screenshot showing the tests can't run because the Cardgame class doesn't have the correct end statements at the end of the class, too many for the 'highest_card' method and also because def was misspelled ruby was not recognising when the functions started and ended.

```
➜  Texting_Exercises git:(master) ✗ ruby task2_spec.rb
task2_spec.rb:2:in `require_relative': /Users/user/codeclan_work/pda/Texting_Exercises/task2.rb:28: syntax error, unexpected end-of-input, expecting keyword_end (SyntaxError)
        from task2_spec.rb:2:in `<main>'
```

Correcting the spelling of def and adding the right end statements has changed the error. Now the program can't run because the parameters of the 'highest_value' method are not separated by a comma.

```
➜  Texting_Exercises git:(master) ✗ ruby task2_spec.rb
task2_spec.rb:2:in `require_relative': /Users/user/codeclan_work/pda/Texting_Exercises/task2.rb:13: syntax error, unexpected tIDENTIFIER, expecting ')' (SyntaxError)
  def highest_card(card1 card2)
                         ^
/Users/user/codeclan_work/pda/Texting_Exercises/task2.rb:30: syntax error, unexpected keyword_end, expecting end-of-input
        from task2_spec.rb:2:in `<main>'
```

The next error is appearing because a double equals sign (==) is required to test for equality.

```
➜  Texting_Exercises git:(master) ✗ ruby task2_spec.rb
Run options: --seed 16705

# Running:

EE

Finished in 0.001047s, 1910.2198 runs/s, 0.0000 assertions/s.

  1) Error:
Task2Test#test_check_for_ace_is_not_ace:
NoMethodError: undefined method `value=' for #<Card:0x007fdba42a2ec0 @suit="jack", @value=11>
Did you mean?  value
    /Users/user/codeclan_work/pda/Texting_Exercises/task2.rb:6:in `checkforAce'
    task2_spec.rb:18:in `test_check_for_ace_is_not_ace'

  2) Error:
Task2Test#test_check_for_ace_is_ace:
NoMethodError: undefined method `value=' for #<Card:0x007fdba42a2858 @suit="ace", @value=1>
Did you mean?  value
    /Users/user/codeclan_work/pda/Texting_Exercises/task2.rb:6:in `checkforAce'
    task2_spec.rb:14:in `test_check_for_ace_is_ace'

2 runs, 0 assertions, 0 failures, 2 errors, 0 skips
➜  Texting_Exercises git:(master) ✗
```

The tests run once this is fixed:

```
➜  Texting_Exercises git:(master) ✗ ruby task2_spec.rb
Run options: --seed 45379

# Running:

..

Finished in 0.000917s, 2181.0251 runs/s, 2181.0251 assertions/s.

2 runs, 2 assertions, 0 failures, 0 errors, 0 skips
```

Second tests for finding the higher card:

```
def test_highest_card_returns_jack_correct
  assert_equal(@card2, @card_game.highest_card(@card1, @card2))
end

def test_highest_card_returns_jack_incorrect
  assert_equal(@card2, @card_game.highest_card(@card2, @card1))
end
```

The second is failing because the method refers to card when the parameters are card1 and card2. The first one is passing because the value of @card1 is not higher than the value of @card2 so it skips the statement with the error in it.

```
➜  Texting_Exercises git:(master) ✗ ruby task2_spec.rb
Run options: --seed 9323

# Running:

...E

Finished in 0.001062s, 3766.4786 runs/s, 2824.8589 assertions/s.

  1) Error:
Task2Test#test_highest_card_returns_jack_incorrect:
NameError: undefined local variable or method `card' for #<CardGame:0x007f911ca99c78>
Did you mean?  card2
               card1
    /Users/user/codeclan_work/pda/Texting_Exercises/task2.rb:15:in `highest_card'
    task2_spec.rb:26:in `test_highest_card_returns_jack_incorrect'

4 runs, 3 assertions, 0 failures, 1 errors, 0 skips
```

Once this is fixed there is a new failure message because .name is not a defined method.

```
➜  Texting_Exercises git:(master) ✗ ruby task2_spec.rb
Run options: --seed 32199

# Running:

E...

Finished in 0.001049s, 3813.1555 runs/s, 2859.8667 assertions/s.

  1) Error:
Task2Test#test_highest_card_returns_jack_incorrect:
NoMethodError: undefined method `name' for #<Card:0x007f9ed2032d48 @suit="jack", @value=11>
    /Users/user/codeclan_work/pda/Texting_Exercises/task2.rb:15:in `highest_card'
    task2_spec.rb:26:in `test_highest_card_returns_jack_incorrect'

4 runs, 3 assertions, 0 failures, 1 errors, 0 skips
```

To fix this I've removed the .name so that it runs the card1 object. The tests now run:

```
Texting_Exercises git:(master) ✗ ruby task2_spec.rb
un options: --seed 44827

 Running:

...

inished in 0.001004s, 3984.0634 runs/s, 3984.0634 assertions/s.

 runs, 4 assertions, 0 failures, 0 errors, 0 skips
Texting_Exercises git:(master) ✗
```

Third test for totalling all the card values:

```ruby
def test_cards_total
  cards = [@card1, @card2]
  assert_equal("You have a total of 12", CardGame.cards_total(cards))
end
```

This test errors because the variable total has not been defined correctly. Needs corrected to total = 0.

```
➜  Texting_Exercises git:(master) ✗ ruby task2_spec.rb
Run options: --seed 4935

# Running:

E....

Finished in 0.001356s, 3687.3154 runs/s, 2949.8523 assertions/s.

  1) Error:
Task2Test#test_cards_total:
NameError: undefined local variable or method `total' for CardGame:Class
    /Users/user/codeclan_work/pda/Texting_Exercises/task2.rb:23:in `cards_total'
    task2_spec.rb:31:in `test_cards_total'

5 runs, 4 assertions, 0 failures, 1 errors, 0 skips
```

Once fixed we get a new error due to trying to return an integer as a string.

```
➜  Texting_Exercises git:(master) ✗ ruby task2_spec.rb
Run options: --seed 4935

# Running:

E....

Finished in 0.001356s, 3687.3154 runs/s, 2949.8523 assertions/s.

  1) Error:
Task2Test#test_cards_total:
NameError: undefined local variable or method `total' for CardGame:Class
    /Users/user/codeclan_work/pda/Texting_Exercises/task2.rb:23:in `cards_total'
    task2_spec.rb:31:in `test_cards_total'

5 runs, 4 assertions, 0 failures, 1 errors, 0 skips
```

The test is now failing for two reasons:

1) The string should have a space in before the closing “
2) The method is returning to early so is finishing after getting the value of the first card. This needs to be moved to after the for loop

```
➜  Texting_Exercises git:(master) ✗ ruby task2_spec.rb
Run options: --seed 21494

# Running:

F....

Finished in 0.001244s, 4019.2925 runs/s, 4019.2925 assertions/s.

  1) Failure:
Task2Test#test_cards_total [task2_spec.rb:31]:
Expected: "You have a total of 12"
  Actual: "You have a total of1"

5 runs, 5 assertions, 1 failures, 0 errors, 0 skips
```

Once fixed all the tests pass:

```
➜  Texting_Exercises git:(master) ✗ ruby task2_spec.rb
Run options: --seed 17525

# Running:

.....

Finished in 0.001122s, 4456.3278 runs/s, 4456.3278 assertions/s.

5 runs, 5 assertions, 0 failures, 0 errors, 0 skips
➜  Texting_Exercises git:(master) ✗
```