CODER DETOX SPA
RUBY TERMINAL APPLICATION

by Natalie Bottema

What is Coder Detox Spa?

- The coder detox spa is a two-part application
- The first part of the application allows the user to complete a quiz on programming in order to earn points for their spa wallet
- The second part of the application allows users to cash in their points to ‘purchase’ spa treatments

DESIGN PROCESS & DECISIONS

APPLICATION OBJECTIVES

1. Create an application that provides the user with an interactive and engaging way to revise programming concepts

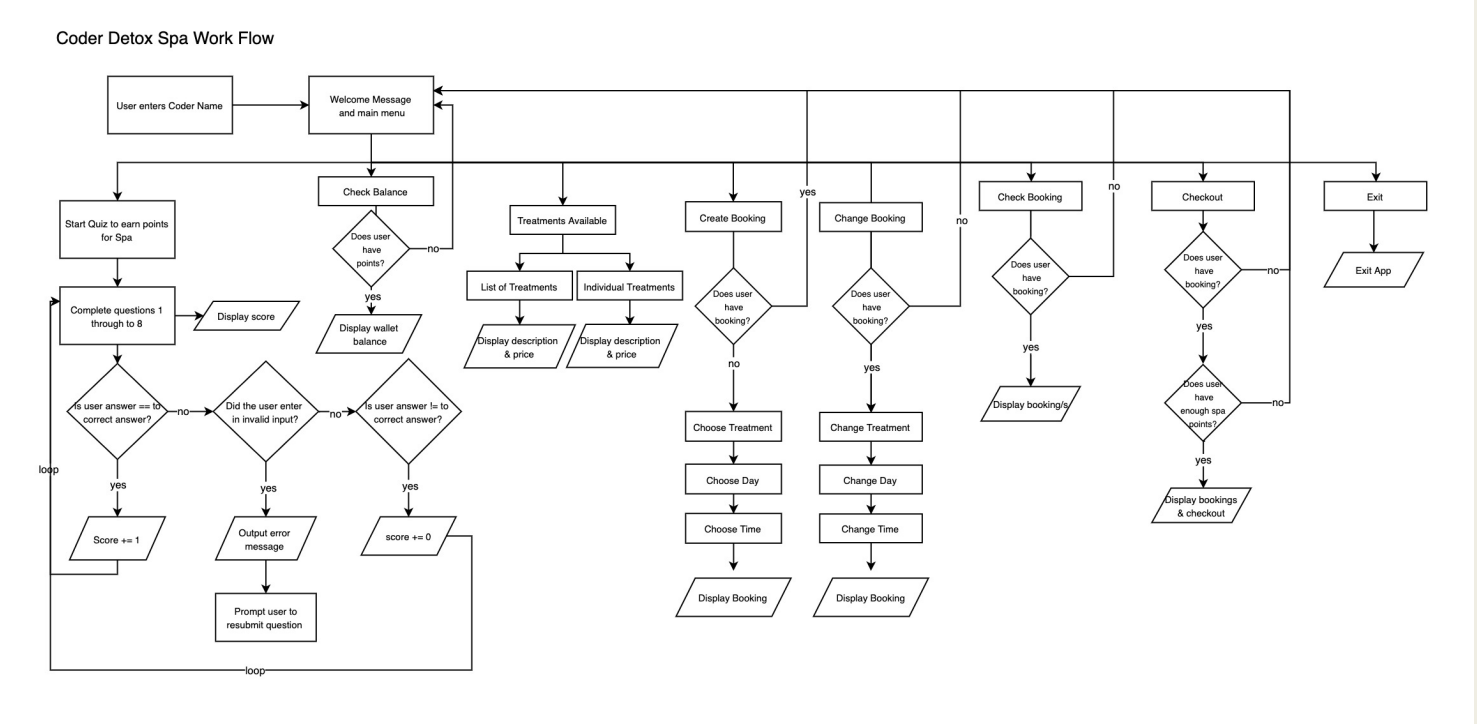
- Implemented through the quiz, which aims to give the user a different approach to studying

2. Provide a virtual reward system for completing the quiz

- Implemented through the spa, which aims to be amusing and somewhat satirical

DESIGN PROCESS & DECISIONS

CONTROL FLOW OF APPLICATION



THE ORIGINAL CONTROL FLOW

Three menu items in the main menu:

- Start Quiz
- Check Balance
- Enter Spa

THE UPDATED CONTROL FLOW

Spa Menu consolidated into main menu:

- Start Quiz
- Check Balance
- View Treatments
- Create Booking
- Change Booking
- Check Booking
- Checkout

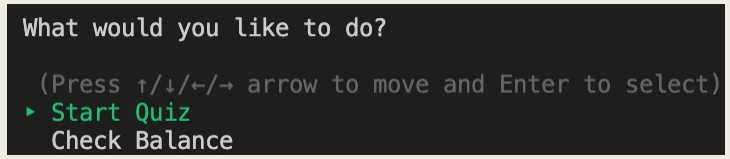
OVERVIEW

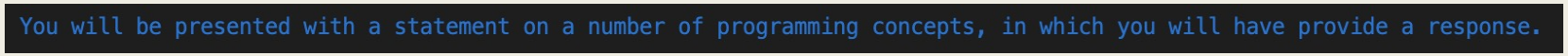
APP FEATURES

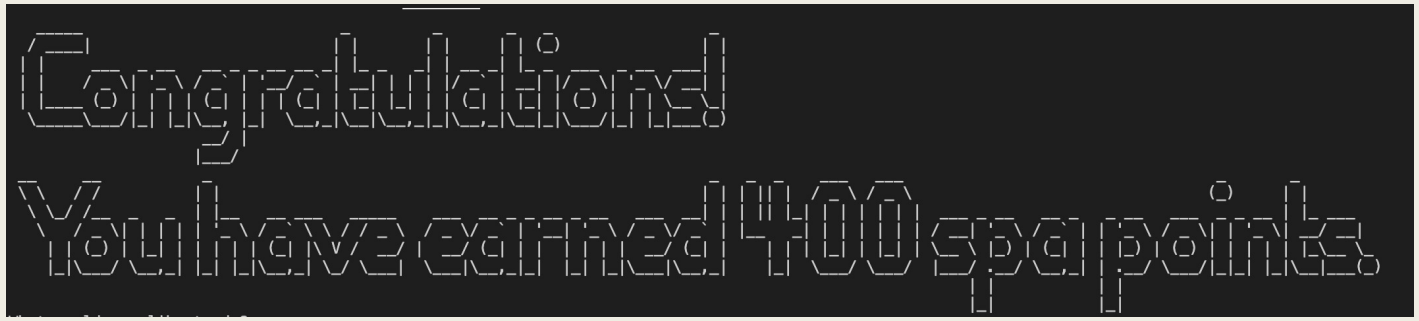
- Menu
- Quiz
- Treatments
- Create a Booking
- Change a Booking
- Display Booking
- Check Spa Points
- Checkout

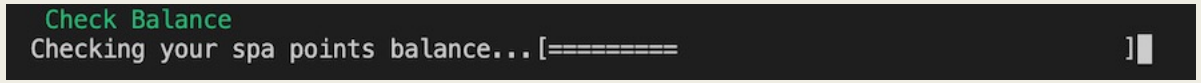
RUBY GEMS UTILISED

- tty-prompt
- colorize
- Artii
- tty-font
- tty-progressbar
- tty-box
- pastel









OVERVIEW

MENU FEATURE

The Coder Detox Spa has three menus, which include:

- A Main Menu
- A Treatments Menu
- A Checkout Menu

CODE IMPLEMENTATION

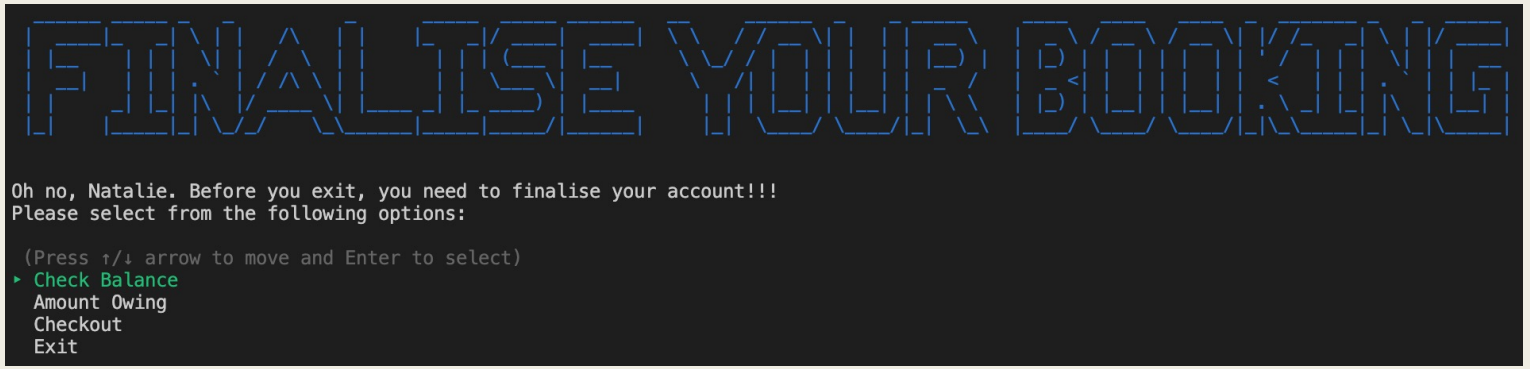
MENU FEATURE

- Each menu utilises TTY-Prompt, which enables the user to select an option without the user entering invalid input

- All three menu’s are structured utilising a while loop, which breaks when the user selects exit

FINAL DESIGN

MENU FEATURE



OVERVIEW

QUIZ FEATURE

- The user has the option to take a test on programming
- The user is presented with 5 statements, in which the user is required to answer with either “true” or “false”.
- When the user answers a question correctly they receive 50 points
- After finishing the quiz the user is presented with a final score

CODE IMPLEMENTATION

QUIZ FEATURE

A Quiz Class

- Attributes of question, answer, incorrect and score

An Array of Questions

- holds all new quiz class objects

A For loop

- loops through all questions.
- When the User answers correctly a score is allocated to a score variable

A SpaPoints Class

- stores the users final score from the quiz as a SpaPoints object

```ruby
class Quiz
    attr_accessor :question, :answer, :incorrect, :score
    def initialize(question, answer, incorrect, score)
        @question = question
        @answer = answer
        @incorrect = incorrect
        @score = score
    end
end
```

```ruby
# Question variables

q1 = "Ruby is an object-oriented programming language.".green
q2 = "HTML stands for HyperTyped Markup Language".green
q3 = "In FlexBox, Justified Content defines how to position elements vertically".green
q4 = "The Git Command 'git remote show origin' allows you see more information about a remote repo".green
q5 = "Subresource Integrity is a security feature that prevents files from being manipulated".green
q6 = "The comparable mixin '<=>' compares values on either side of it and can be used to sort values".green
q7 = "In Ruby, you can access variables in a method from outside of that method".green
q8 = "In HTML, the textarea element is used to create a checkbox in a form".green
```

```ruby
def Questionnaire(questions)
    answer = ""
    score = 0
    attempts = 0
        attempts = attempts || 0
    begin
    for question in questions
        puts question.question
        answer = gets.strip.downcase.to_s
        if answer == question.answer
            score += question.score
        elsif answer == question.incorrect
            score += 0
        else
        raise InvalidInputError.new "Invalid input entered. Please use 'true' or 'false' answers."
        end
    end
    end
    return score
end
```

```ruby
class SpaPoints
    attr_accessor :wallet
    def initialize(wallet)
        @wallet = wallet
    end
end
```

FINAL DESIGN

QUIZ FEATURE

OVERVIEW

TREATMENT FEATURE

- Allows the User to view either a full list of treatments or individual treatments
- Each treatment includes a name, a description and a price.
- This provides the user with what is involved in the treatment and how many spa points they need to book the treatment.

CODE IMPLEMENTATION

TREATMENT FEATURE

The code implemented in the treatment feature includes:

- A treatment class with the attributes of name, description and price

```ruby
class Treatment
    attr_accessor :name, :description, :price
    def initialize(name, description, price)
        @name = name
        @description = description
        @price = price
    end
end
```

- THE FULL LIST OF TREATMENTS OPTION iterates over all individual treatments and puts to the screen for the user to view

```ruby
def display_all_treatments(treatments)
    for treatment in treatments
        puts treatment.name
        puts "\n"
        puts treatment.description
        puts "\n"
        puts treatment.price
        puts "\n"
    end
end
```

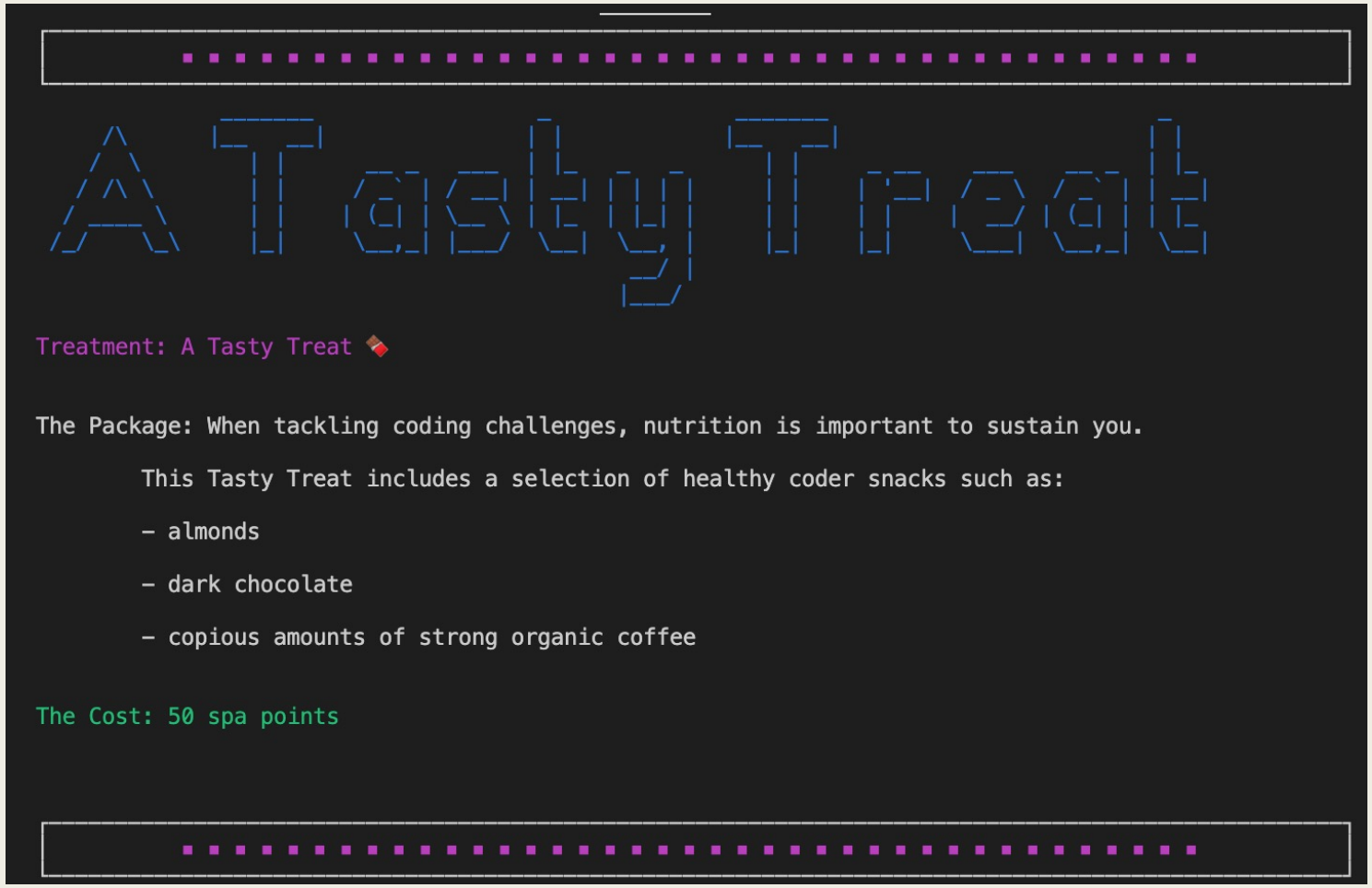
- THE INDIVIDUAL TREATMENT OPTION utilises a case statement to determine what individual treatment to print and accesses that treatment's corresponding class attributes

```ruby
def display_individual_treatments(treatment)
    puts "Treatment: #{treatment.name}\n\n".magenta
    puts "The Package: #{treatment.description}\n\n"
    puts "The Cost: #{treatment.price} spa points\n\n\n".green
end
```

- The user accesses this information through the treatment menu

FINAL DESIGN

TREATMENT FEATURE



OVERVIEW

CREATE A BOOKING FEATURE

The Create a Booking Feature allows users to create a booking for a treatment

Through the menu prompts the user will be able to:

- Select a treatment
- Select a day
- Select a time

After the user has selected all the above information, they will receive a message stating that they have secured a booking for their chosen treatment, day and time

CODE IMPLEMENTATION

CREATE A BOOKING FEATURE

The code implemented in the create a booking feature includes:

- Storing each piece of user input into a hash called booking. Storing the information in a hash will allow the program to easily display the booking details when the user requests them.

- Furthermore, a booking class will also be implemented to store the booking in a secondary location as booking1. When a hash value pair is produced, the values are stored as a new booking class object.

```ruby
class Booking
    attr_accessor :treatment, :day, :time
    def initialize(treatment, day, time)
        @treatment = treatment
        @day = day
        @time = time
    end
end
```

```ruby
when  "Create Booking"
    if owing != nil
    # Create a booking heading
    create_booking_heading

    # User is prompted to select a treatment, answer is stored in booking hash
    answer = prompt.select("Please select your treatment:\n\n", %w(A\ Tasty\ Treat Detox\ Facial New\ Hair,\ Who\ Dis? Coder\ Special Stack\ Overflow\ Enlightenment))
    booking[:treatment] = answer

    # User is prompted to select a day, answer is stored in booking hash
    answer = prompt.select("Please select a day you would like your treatment:\n\n", %w(Sunday Monday Tuesday Wednesday Thursday Friday Saturday))
    booking[:day] = answer

    # User is prompted to select a time, answer is stored in booking hash
    answer = prompt.select("Please select a time you would like to have your treatment:\n\n", %w(9:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00))
    booking[:time] = answer

    # Display to user their booking details
    print "You have now secured a booking for #{booking[:treatment]} on #{booking[:day]} at #{booking[:time]}.\n\n"

    else
        puts "Thank you for waiting #{name}, it appears you already have a booking.\n
        If you would like to change your booking, please select Change Booking from the main menu."
    end
```

```ruby
# Booking details are stored in a new class object called booking1
booking1 = Booking.new(booking[:treatment],booking[:day],booking[:time])

if booking[:treatment] == "A Tasty Treat"
    owing << treatment1.price
elsif booking[:treatment] == "Detox Facial"
    owing << treatment2.price
elsif booking[:treatment] == "New Hair, Who Dis?"
    owing << treatment3.price
elsif booking[:treatment] == "Coder Special"
    owing << treatment4.price
elsif booking[:treatment] == "Stack Overflow Enlightenment"
    owing << treatment5.price
end
```

FINAL DESIGN

CREATE A BOOKING FEATURE

OVERVIEW

CHANGE A BOOKING FEATURE

The Change a Booking Feature allows the user to change their original treatment booking

Like the Create a Booking feature, the Change a Booking menu prompts the user to:

- Select a treatment
- Select a day
- Select a time

After the user has selected all the above information, they will receive a message stating that they have secured a new booking for their chosen treatment, day and time. The user is also told that their original booking has been deleted.

CODE IMPLEMENTATION

CHANGE A BOOKING FEATURE

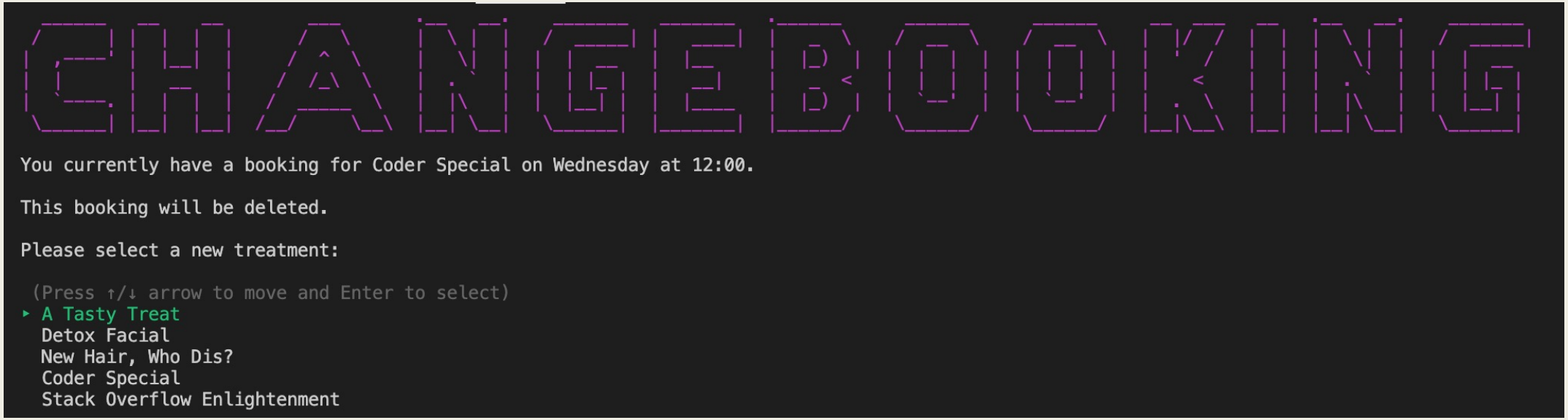
The code implemented in the Change a Booking Feature includes:

- Deleting the previous bookings key values from the bookings hash
- Storing each new piece of user input into the booking hash.
- A new booking class object will also be created as booking2, which utilises the values in the bookings hash

```
when  "Change Booking"
    # Change booking heading
    self_clear
    change_booking_heading
    if owing != nil
        puts "You currently have a booking for #{booking[:treatment]} on #{booking[:day]} at #{booking[:time]}.\n\n"
        puts "This booking will be deleted.\n\n"

        # Items from hash are deleted
        booking.delete(:treatment)
        booking.delete(:day)
        booking.delete(:time)

        # User is prompted to reselect a new treatment
        answer = prompt.select("Please select a new treatment:\n\n", %w(A\ Tasty\ Treat Detox\ Facial New\ Hair,\ Who\ Dis? Coder\ Special Stack\ Overflow\ Enlightenment))

        # New treatment is stored in the bookings hash
        booking[:treatment] = answer

        # User is prompted to reselect a new day
        answer = prompt.select("Please select a new day that you would like your treatment:\n\n", %w(Sunday Monday Tuesday Wednesday Thursday Friday Saturday))

        # New day is store in the bookings hash
        booking[:day] = answer

        # User is prompted to reselect a new time
        answer = prompt.select("Please select a new time that you would like to have your treatment:\n\n", %w(9:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00))

        # New time is store in the bookings hash
        booking[:time] = answer

        # Message to user confirming the change in their booking
        puts "You have now have a new booking for #{booking[:treatment]} on #{booking[:day]} at #{booking[:time]}.\n\n"
        puts "This booking is secured, we look forward to seeing you on #{booking[:day]} at #{booking[:time]}."
```

FINAL DESIGN

CHANGE A BOOKING FEATURE



OVERVIEW & CODE IMPLEMENTATION

DISPLAY BOOKING FEATURE

- The Display Booking Feature allows users to view their future treatments
- Display Booking feature code implementation accesses the treatment, description and price information by calling on the values stored in the bookings hash
- This information is then puts to the screen for the user to view

```
when  "Display Booking"
    self_clear
    display_booking_heading
    if owing != nil
        puts "You currently have a booking for #{booking[:treatment]} on #{booking[:day]} at #{booking[:time]}.\n\n"
    else
        puts "Sorry #{name}, it appears that you do not have a booking yet. Select create a booking to change that!"
    end
```

FINAL DESIGN

DISPLAY BOOKING

OVERVIEW & CODE IMPLEMENTATION

CHECK SPA POINTS FEATURE

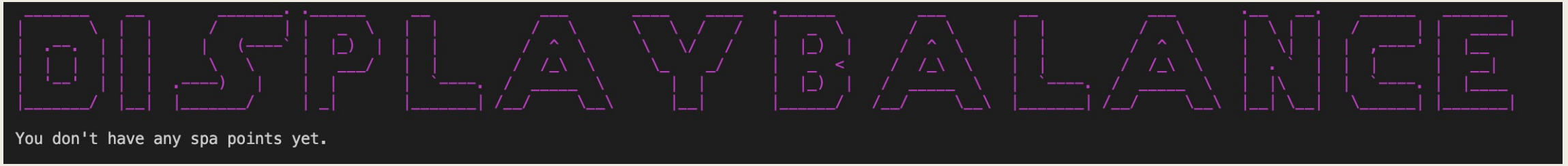
- The Check Spa Points Feature allows users to view how many spa points they have received
- The Check Spa Points Feature accesses the users spa points via the objects stored in the Spa Points Class
- This information is then puts to the screen for the user to view

```
when  "Check Balance"
        loading_balance
        self_clear
        display_balance_heading
        if $wallet == nil
            puts "You don't have any spa points yet.\n\n"
        else
            puts "You currently have #{$wallet.wallet} spa points.\n\n"
        end
```

FINAL DESIGN

CHECK SPA POINTS FEATURE

Before completing the quiz



After completing the quiz

OVERVIEW & CODE IMPLEMENTATION

CHECKOUT FEATURE

The Checkout Feature allows users to finalise payment for their booked treatment

The code implemented in this feature is:

- A transaction method that calculates the treatment price subtracted from their spa points
- If the treatment price is more then the user's spa points the application will prompt the user to either retake the quiz or select another treatment

```
when "Checkout"
    sum = buy($wallet.wallet, owing[0])
    if sum < 0
        puts "Im sorry #{name}, it appears that you do not have enough spa points for this treatment.\n\n"
        puts "Remember, practice makes perfect #{name}. You can complete the quiz again to earn more spa points."
    else
        puts "Thank you for choosing Coder Detox Spa, #{name}. We look forward to seeing you on #{booking[:day]} at #{booking[:time]}."
    end
```

DEVELOPMENT & BUILD PROCESS

APPROACHING THE TASK

Planning : -

- Working off my control flow chart to understand what classes and methods were needed to build my application

Time Management & Prioritisation: -

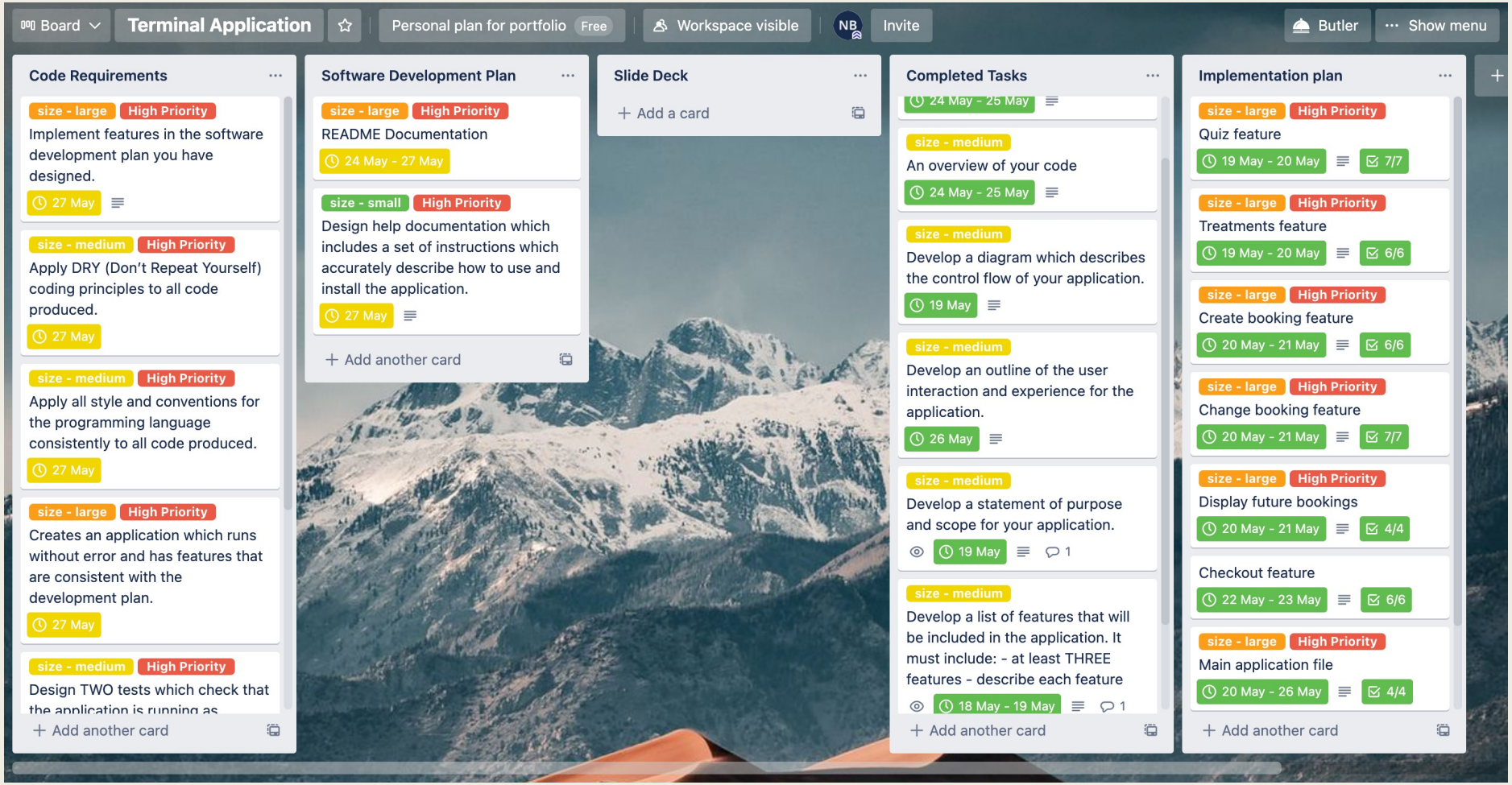
- A Trello board was utilised to prioritise tasks and complete application requirements

GitHub: -

- Initiating a remote repository and committing regularly

DEVELOPMENT & BUILD PROCESS

APPROACHING THE TASK - TRELLO



- Trello Board to keep track of tasks and software implementation
- All task were given a size label and if they were deemed a priority they were given a high priority label
- Due dates were also assigned to keep to the strict deadline
- All features had a checklist of things to complete

DEVELOPMENT & BUILD PROCESS

CHALLENGES

- Not having the experience to know how to fix a bug
- Working across local files with “require_relative”
- Amending a line of code to fix a bug, which ultimately breaks something else in the program
- Time management

DEVELOPMENT & BUILD PROCESS

FAVOURITE PARTS

- Incremental success – when you change something in your code and it finally works – the eureka moment!
- The learning process – I have a much better understanding of Ruby after completing this project
- The satisfaction of the final product