WinterMood
Group #1
Requirements Document, 06/30/2017
Version 0
Version 1

Project URL: https://guarded-plateau-90883.herokuapp.com/
Project repo: https://github.com/garbrl/WinterMood

Team members

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Project abstract

WinterMood is an online web application for multiple users to track correlations between their mood and the weather. It is based on Seasonal Affective Disorder, a mood disorder subset where people experience depressive tendencies around wintertime. Users can sign up or login, select their area and periodically identify their mood, as well as add data about their hours of sleep and exercise. A weather API will be used to record the weather based on the user's chosen location. Users can then look at graphs of annual or monthly trends of their data.

Customer

The target audience is users with existing depressive or anxious tendencies, especially those diagnosed with SAD. Seasonal Affective Disorder affects between 2 and 3% of Canadians in their lifetime while another 15% experience a milder form of it. WinterMood would provide them with a tool to track how their mood relates to the weather, as well as the impact of other factors such as sleep and exercise. They can use this information to influence lifestyle changes and to understand themselves better. WinterMood can also be useful for people who have not been diagnosed with SAD but suspect that they might have it. Tracking their mood and influences over some time would help them have a conversation with a psychologist or counsellor.

Competitive Analysis

There are many applications allowing people to track their mood related to their exercise, sleep, etc. However, no existing applications we could find allow users to track its relation to the weather around them. WinterMood makes it easy for users to, at a glance, see how different factors like the weather, sleep and exercise affect their mood.

User Stories

The actors in the project are prospective users, regular signed-up users and administrators.

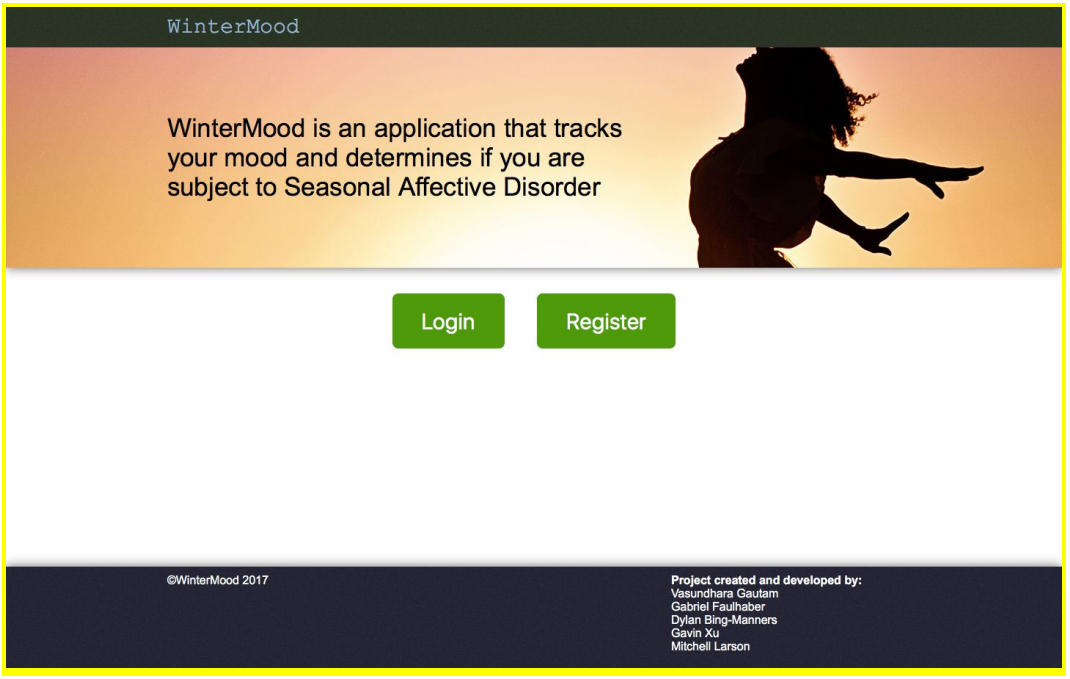
- Register
  - Actors: Prospective users
  - Preconditions: Clicking the 'Register' button on the website to register with a unique username
  - Postconditions: Prospective user's password is hashed using bcrypt, their unique username and the hashed password are stored in the database, and they are logged in (see log in story)
  - Iteration: 1
  - Example: Kate wants to know if she is affected by Seasonal Affective Disorder. She goes to the WinterMood website, which shows her a message describing WinterMood and asks her to register or login. Kate does not have an account, so she clicks "Register." The website then asks her to create a username and password, then click "Submit." If she enters a username that is already in the database, then the website tells her this and asks her to to try again to create a unique username. If Kate types a password that is less than 8 characters or more than 32 characters then she gets an error. After another try Kate chooses a unique username and a password between 8-32 characters. Now that Kate is registered, she is automatically logged in.
- Login
  - Actors: Regular signed-up users, prospective users, administrators
  - Preconditions: Clicking the 'Log in' button on the website, the user knows their username and password
  - Postconditions: If the username is correct and the hashed input password matches the hash in the corresponding row of the database, the user is redirected to the home page where they are shown as logged in
  - Iteration: 1
  - Example: Kate goes to the WinterMood website, which asks her to register or login. Kate already has an account so she clicks "Log in." Kate types in her username and password, but she types it in incorrectly. WinterMood explains that her login details were wrong and asks her to try again. Kate tries again, this time correctly, and WinterMood redirects her to a page that asks her to evaluate her mood. Kate will stay logged in on this computer and browser will stay logged in on this computer and browser until she closes it.
- List Users
  - Actors: Administrators
  - Preconditions: Logged in user is one of the known administrators
  - Postconditions: The administrator sees a listing of all the users with their usernames and links to see their mood data
  - Iteration: 1
  - Example: John Cena, the administrator, is logged into the WinterMood website. When he goes to the user listing URL, he is shown a list of all the

users with links to see their mood data. If any non-administrator tries to access that URL, they will get a 403 error.

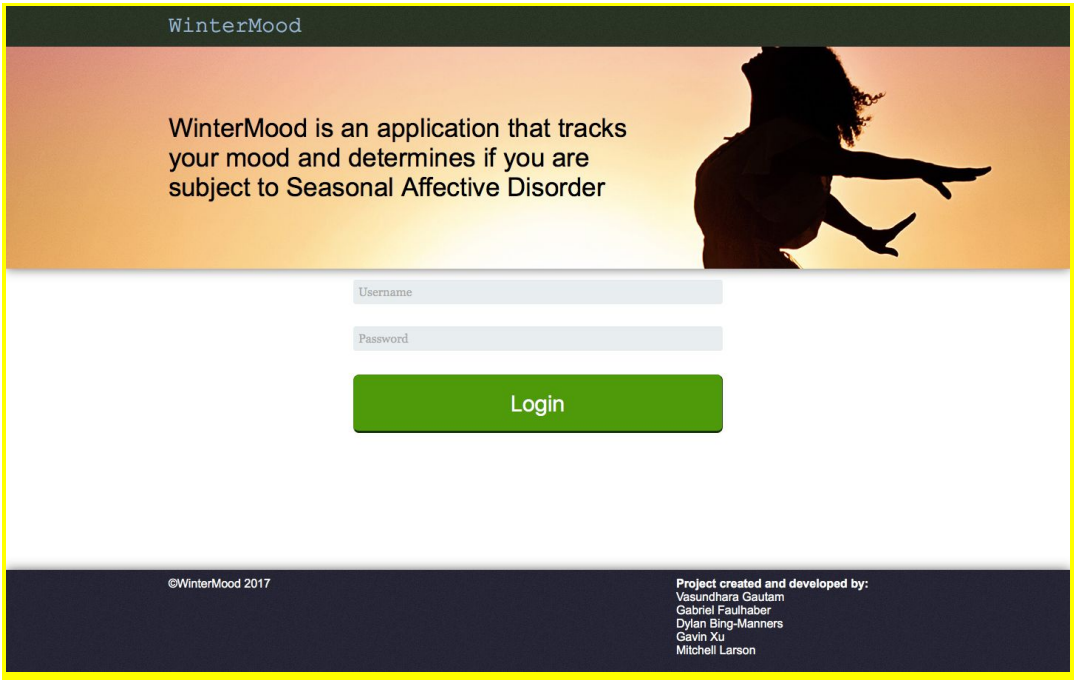
- Mood Tracking
    - Actors: Regular signed-up users
    - Preconditions: Logged in user
    - Postconditions: Mood, hours of sleep and hours of exercise submitted, associated in the database with local weather
    - Iteration: 2
    - Example: Kate wants to submit her mood for WinterMood to evaluate. She is already logged in on the website. The website asks her to select how she feels on a scale of 10 integers from 1-10, with 1 being as sad as she can get and 10 being as happy as she can be. The website then asks her to type how many hours of exercise she has had today, and how many hours of sleep she had the night before, then click submit. If it is before sunrise or more than 30 minutes after sunset, then WinterMood will give her an error message asking her to complete the form during daylight hours. If she didn't input any information in one of the three categories then WinterMood will give her an error message asking her to complete all three answers. If she types a negative number for sleep or exercise, or more than 24 hours of exercise then WinterMood will give Kate an error message explaining that she chose values that were impossible and that she should try again. If she submits the form complete with all 3 questions, then WinterMood will find weather data (to be determined) in her area at that time and will record all this data on her account. Kate is then redirected to the analysis page.
- Analysis Story
    - Actors: Regular signed-up users
    - Preconditions: Logged in user
    - Postconditions: Mood, hours of sleep and hours of exercise submitted, associated in the database with local weather
    - Iteration: 3
    - Example: Kate wants to see an analysis of the data she has logged. She has just finished submitting a tracking form and has been submitted to the analysis page. If she has not yet successfully created at least 5 forms, then WinterMood asks her to wait until more have been completed. If she has completed at least 5 forms, then she will see a graph that plots overcast percentage against her mood, sleep and exercise. WinterMood will also give her a calculation in percentage form, which describes how likely WinterMood thinks it is that she has Seasonal Affective Disorder.

User Interface

- Home page



- Login form



- 403 error (user is trying to access a page they are not allowed to)