## **Project Part 6: Final Project Submission**

CSCI 3308; Boese

- I. Title of Project: Rocky Mountain Ski Genie
- II. Team Members: Eric Rudat, Will Vardell Alex Doran
- III. Methodologies Used: Waterfall, Paired Programming, and Peer Code Review
- **IV** *Project Tracker*: https://trello.com/b/76d3ov4E/rocky-mountain-ski-genie
- V. VCS Repository (Github): https://github.com/AlexLDoran/RockyMountainSkiGenie
- **VI.** *Database Used:* Not a traditional MySQL/NoSQL database. Instead we used OpenWeatherMap's data services and accessed their weather information through REST API calls.

vII. E-R Diagram:

openWeater data

+lat&lng
+temperature
+min\_temperature
+max\_temperature
+wind speed

waxArray(JSON)
+temperature
+wax types

VIII. Deployment Environment: DigitalOcean

• <url> = https://rockymountainskigenie.com (copy and paste into web browser)

## **IX.** Project Proposal vs. Actual Project:

- Our project was approximately 90% complete based on the requirements we defined in Part 2 of the process. Some differences include:
  - The system does not support recommendations for goggle lens like we intended to include. After exploring various weather API options, we struck-out finding one that provided real-time UV index readings. Thus, we decided to omit this feature; however, in it could easily be added in, in the future if support for UV index readings becomes available.
  - O The other variation from our original design pertains to the functional requirement that our system would prompt the user to enter snow conditions after they selected the mountain. After researching different ski waxes online we learned that the biggest factor, that makes one wax superior to the next, is a combination of air and snow temperature. Thus, we were decided the 'input snow conditions' feature was unnecessary, and omitted it from the final design.

## X. Test Cases:

| Project Name: Rocky Mountain Ski Genie       |  |                |         |                                |                   |                   |       |  |  |
|--|--|----------------|---------|--------------------------------|-------------------|-------------------|-------|--|--|
| Test Case #1                                 |  |                |         |                                |                   |                   |       |  |  |
| Test Case ID: WindowSize                     |  |                |         | Test Designed By: Will Vardell |                   |                   |       |  |  |
| Test Priority(Low,Med,High): Low             |  |                |         | Test                           | Designed D        | ate: 12/5         |       |  |  |
| Modu   | le Name: Win   | dow Resizing   |         | Test                           | <b>Executed B</b> | <b>y:</b> 12/8    |       |  |  |
| Test 7                                       | Title: Verify R  | esizing doesn' | t break | Test                           | Execution l       | <b>Date:</b> 12/8 |       |  |  |
| websi  | te format  |                |         |                                |                   |                   |       |  |  |
| <b>Description:</b> Try odd window sizes and |  |                |         |                                |                   |                   |       |  |  |
| observ                                       | ve the format o  | of the page    |         |                                |                   |                   |       |  |  |
| Pre-co                                       | onditions: Site  | e must be up a | nd runn | ing on                         | localhost         |                   |       |  |  |
| Depe   | ndencies:  |                |         |                                |                   |                   |       |  |  |
| Step   | Test Steps   | Test Data      | Expect  | ted                            | Actual            | Status            | Notes |  |  |
| 1  | Navigate to  |                |         |                                |                   |                   |       |  |  |
|  | webpage  |                |         |                                |                   |                   |       |  |  |
| 2  | 1 0  |                |         |                                |                   |                   |       |  |  |
| window   reform                              |  |                |         |                                | Expected          |                   |       |  |  |
| fit in screen                                |  |                |         |                                |                   |                   |       |  |  |
| nicely                                       |  |                |         |                                |                   |                   |       |  |  |
| Post-0                                       | Post-Conditions: All resizing works, if window is made too small options stack |                |         |                                |                   |                   |       |  |  |
| vertica                                      | vertically   |                |         |                                |                   |                   |       |  |  |

| Proje  | ct Name: Rocl   | ky Mountain Sl | ki Geni | ie                       |                                     |          |       |  |
|--|-----------------|----------------|---------|--------------------------|-------------------------------------|----------|-------|--|
|  |                 | T              | est C   | ase ‡                    | <b>#2</b>                           |          |       |  |
| Test Case ID: ActiveLinks                      |                 |                |         |                          | <b>Test Designed By:</b> Alex Doran |          |       |  |
| Test Priority(Low,Med,High): High              |                 |                |         | Test Designed Date: 12/5 |                                     |          |       |  |
| Module Name: LinkTest                          |                 |                |         | Test Executed By: 12/8   |                                     |          |       |  |
| Test Title: LiveLinks                          |                 |                |         |                          | <b>Test Execution Date:</b> 12/8    |          |       |  |
| <b>Description:</b> Make sure all links direct |                 |                |         |                          |                                     |          |       |  |
| to a pa  | ag and are acti | ve             |         |                          |                                     |          |       |  |
| Pre-c  | onditions: All  | buttons on the | page ai | re link                  | ed to anoth                         | ier page |       |  |
| Depe   | ndencies:       |                |         |                          |                                     | -        |       |  |
| Step   | Test Steps      | Test Data      | Expe    | cted                     | Actual                              | Status   | Notes |  |
| 1  | Onon            |                |         |                          |                                     |          |       |  |

| Step  | Test Steps     | Test Data         | Expected  | Actual   | Status | Notes |
|-------|----------------|-------------------|-----------|----------|--------|-------|
| 1     | Open up        |                   |           |          |        |       |
|       | the RMSG       |                   |           |          |        |       |
|       | homepage       |                   |           |          |        |       |
| 2     | Select link    |                   | Taken to  | Same as  | Pass   |       |
|       | and make       |                   | mountain  | Expected |        |       |
|       | sure it        |                   | page      |          |        |       |
|       | takes you      |                   |           |          |        |       |
|       | to a           |                   |           |          |        |       |
|       | mountain       |                   |           |          |        |       |
| 3     | Select the     |                   | Taken to  | Same as  | Pass   |       |
|       | "Home"         |                   | home      | Expected |        |       |
|       | buton and      |                   | page      |          |        |       |
|       | make sure      |                   |           |          |        |       |
|       | it sends       |                   |           |          |        |       |
|       | you home       |                   |           |          |        |       |
| Post- | Conditions: Al | ll links work suc | cessfully |          |        |       |

| Proje  | ct Name: Rock          | ky Mountain S         | ki Geni | e          |                   |                   |       |
|--------|------------------------|-----------------------|---------|------------|-------------------|-------------------|-------|
|        |                        | 7                     | Cest Ca | ase#       | ±3                |                   |       |
| Test ( | Case ID: Weath         | ier                   |         | Test       | <b>Designed B</b> | y: Eric Rud       | at    |
| Test l | Priority(Low,          | <b>/led,High):</b> Hi | Test    | Designed D | ate: 12/5         |                   |       |
| Modu   | ı <b>le Name:</b> Wea  | therAPI               |         | Test       | Executed B        | y: 12/8           |       |
| Test 7 | <b>Γitle:</b> Weather' | Гest                  |         | Test       | Execution I       | <b>Date:</b> 12/8 |       |
| Descr  | ription: Make s        | ure correct w         | eather  |            |                   | •                 |       |
|        | olayed                 |                       |         |            |                   |                   |       |
|        |                        |                       |         |            |                   |                   |       |
| Pre-c  | onditions: Hav         | e Openweath           | ermap A | PI link    | ed to RMSG        | page              |       |
|        | ndencies:              | •                     | •       |            |                   |                   |       |
| -      |                        |                       |         |            |                   |                   |       |
| Step   | Test Steps             | Test Data             | Expe    | cted       | Actual            | Status            | Notes |
| 1      | Make sure              |                       |         |            |                   |                   |       |
|        | you are                |                       |         |            |                   |                   |       |
|        | running on             |                       |         |            |                   |                   |       |
|        | localhost              |                       |         |            |                   |                   |       |
| 2      | Navigate to            |                       |         |            |                   |                   |       |
|        | preferred              |                       |         |            |                   |                   |       |
|        | mountain               |                       |         |            |                   |                   |       |
|        | page                   |                       |         |            |                   |                   |       |
| 3      | Check                  |                       | Match   | ing        | They              | Pass              |       |
|        | 1                      |                       | 1       |            |                   | 1                 | 1     |

weather

information

displayed weather into

weather.com

Post-Conditions: Weather API is working and accurate

with

matched!

| Test Case #4                     |  |  |  |  |  |  |  |
|----------------------------------|--|--|--|--|--|--|--|
| Test Designed By: Will Vardell   |  |  |  |  |  |  |  |
| <b>Test Designed Date:</b> 12/5  |  |  |  |  |  |  |  |
| Test Executed By: 12/8           |  |  |  |  |  |  |  |
| <b>Test Execution Date:</b> 12/8 |  |  |  |  |  |  |  |
|                                  |  |  |  |  |  |  |  |
|                                  |  |  |  |  |  |  |  |
|                                  |  |  |  |  |  |  |  |
|                                  |  |  |  |  |  |  |  |
|                                  |  |  |  |  |  |  |  |

Pre-conditions: Weather API must be set up and wax algorithm running

Dependencies: An accurate API and algorithm

| Step | Test Steps                           | Test Data | Expected | Actual   | Status | Notes |  |  |  |  |
|------|--------------------------------------|-----------|----------|----------|--------|-------|--|--|--|--|
| 1    | Go to                                |           |          |          |        |       |  |  |  |  |
|      | preferred                            |           |          |          |        |       |  |  |  |  |
|      | mountain and                         |           |          |          |        |       |  |  |  |  |
|      | view                                 |           |          |          |        |       |  |  |  |  |
|      | recommended                          |           |          |          |        |       |  |  |  |  |
|      | wax                                  |           |          |          |        |       |  |  |  |  |
| 2    | Make sure                            |           | Weather  | Same as  | Pass   |       |  |  |  |  |
|      | wax matches                          |           | matches  | expected |        |       |  |  |  |  |
|      | corresponding                        |           | the wax  |          |        |       |  |  |  |  |
|      | weather                              |           | chosen   |          |        |       |  |  |  |  |
| Doct | Post Conditions Cometancia displaced |           |          |          |        |       |  |  |  |  |

**Post-Conditions:** Correct wax is displayed

| Proje        | Project Name: Rocky Mountain Ski Genie |                   |          |            |                          |                   |       |  |  |  |
|--------------|--|-------------------|----------|------------|--------------------------|-------------------|-------|--|--|--|
| Test Case #5 |  |                   |          |            |                          |                   |       |  |  |  |
| Test (       | Case ID: LinkM                         | latch             | Test     | Designed B | y: Alex Dor              | an                |       |  |  |  |
| Test F       | Test Priority(Low,Med,High): High      |                   |          |            | Test Designed Date: 12/5 |                   |       |  |  |  |
| Modu         | Module Name: Links                     |                   |          |            | <b>Executed B</b>        | <b>y:</b> 12/8    |       |  |  |  |
| Test 7       | <b>Title:</b> LinkMate                 | ch                |          | Test       | <b>Execution I</b>       | <b>Date:</b> 12/8 |       |  |  |  |
| Descr        | iption: Make s                         | sure the links m  | atch     |            |                          |                   |       |  |  |  |
| _            | ges they repre                         | esent             |          |            |                          |                   |       |  |  |  |
| Pre-co       | onditions:                             |                   |          |            |                          |                   |       |  |  |  |
| Deper        | Dependencies:                          |                   |          |            |                          |                   |       |  |  |  |
| Step         | Test Steps                             | Test Data         | Expected |            | Actual                   | Status            | Notes |  |  |  |
| 1            | Select                                 |                   |          |            |                          |                   |       |  |  |  |
|              | button for a                           |                   |          |            |                          |                   |       |  |  |  |
|              | specific ski                           |                   |          |            |                          |                   |       |  |  |  |
|              | resort                                 |                   |          |            |                          |                   |       |  |  |  |
| 2            | Make sure                              |                   |          |            |                          |                   |       |  |  |  |
|              | you are                                |                   |          |            |                          |                   |       |  |  |  |
|              | directed to                            |                   |          |            |                          |                   |       |  |  |  |
|              | the right                              |                   |          |            |                          |                   |       |  |  |  |
|              | page                                   |                   | _        |            |                          |                   |       |  |  |  |
| 3            | Go "Home"                              |                   | Linke    | ed         | Same as                  | Pass              |       |  |  |  |
|              | and try the                            |                   | page     | _          | expected                 |                   |       |  |  |  |
|              | next link                              |                   | matc     |            |                          |                   |       |  |  |  |
|              | name                                   |                   |          |            |                          |                   |       |  |  |  |
| Post-0       | C <b>onditions:</b> Li                 | nks are all set u | p and o  | direct     | ed correctly             |                   |       |  |  |  |