Milestone 7

Cpts 322

4/28/22

3J1D

**Testing**:

**User Tests:**

* Login/Register Components Testing:

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| --- | --- |
| Test Case Type | Unit Test – Components.Login() |
| Test Target | Login Button |
| Test Input | username = “test@wsu.edu”  id = 11453879  password = “PEBEEX0x0” |
| Expected Output | Success - [UNIT TEST 1]  Successfully verified user’s username and password, authorized access to user. |

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| Test Case Type | Unit Test – Components.Register() |
| Test Target | Register page |
| Test Input | username = “test@wsu.edu”  id = 11453879  password = “PEBEEX0x0” |
| Expected Output | Success - [UNIT TEST 2] [render] Successfully register a user with a valid username, ID, and password |

* Admin Component Testing:

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| Test Case Type | Unit Test – Components.Admin.ViewGrade() |
| Test Target | Student Grades Page |
| Test Input | ID = 11453879 |
| Expected Output | Success - [UNIT TEST 3] [render]  Successfully display student’s grade |

* Teacher Component Testing:

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| Test Case Type | Unit Test – Components.Teacher.TakeAttendance() |
| Test Target | Attendance Page |
| Test Input | Course = “ENG 420” |
| Expected Output | Success - [UNIT TEST 4] [render]  Successfully display ENG 420’s attendance sheet |

* Student Component Testing:

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| Test Case Type | Unit Test – Components.Student.AddCourse() |
| Test Target | Add Course Page |
| Test Input | Course = “CptS 451” |
| Expected Output | Success - [UNIT TEST 5] [render]  Successfully add a course to the student’s account |

* General User Component Testing:

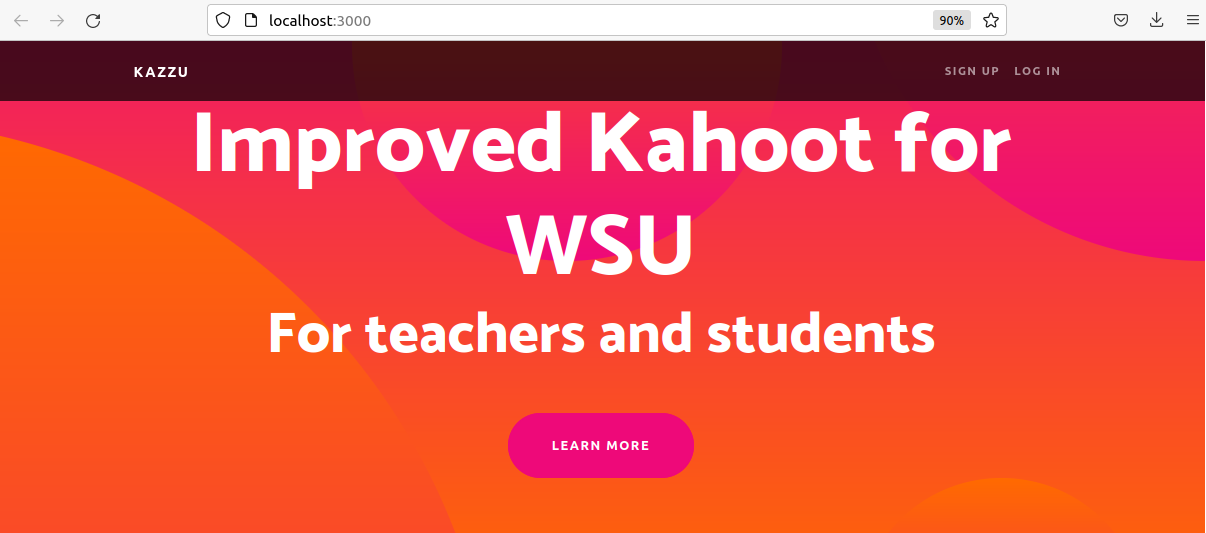
|  |  |
| --- | --- |
| Test Case Type | Unit Test – Components.GeneralUser() |
| Test Target | General User Page |
| Test Input | NA |
| Expected Output | Success - [UNIT TEST 6] [render]  Successfully display Login or Register option for user who has not logged in or is registered |

**-UI Tests:**

Ui Testing:

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| --- | --- |
| Test Case Type | Unit Test – UI.render() |
| Test Target | UI |
| Test Input | A user interface already made |
| Expected Output | Success - [UNIT TEST 1] [render] successfully rendered, you can now view UI in Browser |

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| --- | --- |
| Test Case Type | Unit Test – UI.render.Home() |
| Test Target | Home page |
| Test Input | A home page already made. |
| Expected Output | Success - [UNIT TEST 2] [render] successfully rendered, you can now view Home Page in Browser |



**-Classroom/Course Tests:**

Course:

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| --- | --- |
| Test Case Type | Unit Test – Course.MakeQuestionSet() |
| Test Target | Make a node in Question to append to the list |
| Test Input | Na |
| Expected Output | Success – [UNIT TEST 1] Multiple text box’s to input options, the answer, and the points for getting the question right |

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| --- | --- |
| Test Case Type | Unit Test – Course.ModifyQuestionSet() |
| Test Target | Edit current questionset saved in a Question node |
| Test Input | Na |
| Expected Output | Success – [UNIT TEST 2] Multiple text box’s to edit options, the answer, and points given for getting the question right |

Classroom:

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| --- | --- |
| Test Case Type | Unit Test – Classroom.SetOwner(newOwner) |
| Test Target | Changes the owner of the classroom to the input string newOwner |
| Test Input | String type var newOwner “Test Name” |
| Expected Output | Success – [UNIT TEST 3] The variable from Classroom class owner is “Test Name” |

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| --- | --- |
| Test Case Type | Unit Test – Classroom.AddCourse(newCourse) |
| Test Target | Adds the Course object named newCourse to the list of courses saved in a linked list |
| Test Input | Object Course newCourse node |
| Expected Output | Success – [UNIT TEST 4] Nothing to see but a new node added to the end of the courseList linked list |

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| --- | --- |
| Test Case Type | Unit Test – Classroom.RemoveCourse(cName) |
| Test Target | Find and remove the node with the corresponding name as the input from the course list |
| Test Input | “CptS 322” |
| Expected Output | Success – [UNIT TEST 5] The courseList size is shorter by one node |

**-Question Set/Question Tests:**

Quiz Testing:

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| --- | --- |
| Test Case Type | Unit Test – Quiz.CalculatePoints() |
| Test Target | Quiz Class components. |
| Test Input | Initialized Quiz class with one question. |
| Expected Output | Success - [UNIT TEST 1] [CalculatePoints] successfully returned an array of a single point. |

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| --- | --- |
| Test Case Type | Unit Test – Quiz.CalculatePoints() |
| Test Target | Quiz Class components. |
| Test Input | Initialized Quiz class with multiple questions. |
| Expected Output | Success - [UNIT TEST 2] [CalculatePoints] successfully returned an array of points. |

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| --- | --- |
| Test Case Type | Unit Test – Quiz.GradeQuiz() |
| Test Target | Quiz Class components. |
| Test Input | Initialized Quiz class. |
| Expected Output | Success - [UNIT TEST 3] [GradeQuiz] successfully returned a quiz grade (double). |

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| --- | --- |
| Test Case Type | Unit Test – Quiz.GradeQuiz() |
| Test Target | Quiz Class components. |
| Test Input | Quiz class with several answers- all wrong answers. |
| Expected Output | Success - [UNIT TEST 4] [GradeQuiz] successfully returned a quiz grade equivalent to 0 (0.0). |

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| Test Case Type | Unit Test – Quiz.GradeQuiz() |
| Test Target | Quiz Class components. |
| Test Input | Quiz class with several answers- all correct, valid answers. |
| Expected Output | Success - [UNIT TEST 5] [GradeQuiz] successfully returned a quiz grade equivalent to 100 (100.0). |

QuestionSet Testing:

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| --- | --- |
| Test Case Type | Unit Test – QuestionSet.AddQuestion() |
| Test Target | QuestionSet Class components. |
| Test Input | A question that is an object, and not of null type. |
| Expected Output | Success - [UNIT TEST 6] [Add1Question] questionList has been successfully updated with the Question object added via appendment to the end. |

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| --- | --- |
| Test Case Type | Unit Test – QuestionSet.GetQuestion(q) |
| Test Target | QuestionSet Class components. |
| Test Input | A question that is an object, and not of null type, existing within the boundaries of questionList for the current QuestionSet class. [Question object q]. |
| Expected Output | Success - [UNIT TEST 7] [Get1Question] a Question object has been returned, relating to the desired object. |

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| --- | --- |
| Test Case Type | Unit Test – QuestionSet.RemoveQuestion(q) |
| Test Target | QuestionSet Class components. |
| Test Input | A question that is an object, and not of null type, existing within the boundaries of questionList for the current QuestionSet class. [Question object q]. |
| Expected Output | Success - [UNIT TEST 8] [Remove1Question] questionList has been successfully updated with the Question object no longer in the list. |

Poll Testing:

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| --- | --- |
| Test Case Type | Unit Test – QuestionSet.StartPoll() |
| Test Target | Poll Class components, Trend Class components |
| Test Input | A poll object that is filled with 1+ entries. |
| Expected Output | Success - [UNIT TEST 9] [CompletePollRound] Trends has indeed received updates through return variables concluding the end of an EndPoll() call from this current class. |

Question Testing:

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| --- | --- |
| Test Case Type | Unit Test – Question.GetPoints() |
| Test Target | Question Class components |
| Test Input | None |
| Expected Output | Success - [UNIT TEST 10] [GetPoints] Returned a double of points stored in the Question object. |

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| Test Case Type | Unit Test – Question.SetPoints(p) |
| Test Target | Question Class components |
| Test Input | P being a double = 1.0. |
| Expected Output | Success - [UNIT TEST 11] [SetPoints] Updated a double of points stored in the Question object. |

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| Test Case Type | Unit Test – Question.GetOptions() |
| Test Target | Question Class components |
| Test Input | None |
| Expected Output | Success - [UNIT TEST 12] [GetOptions] Successful return of a filled LinkedList. |

-User Related Tests:

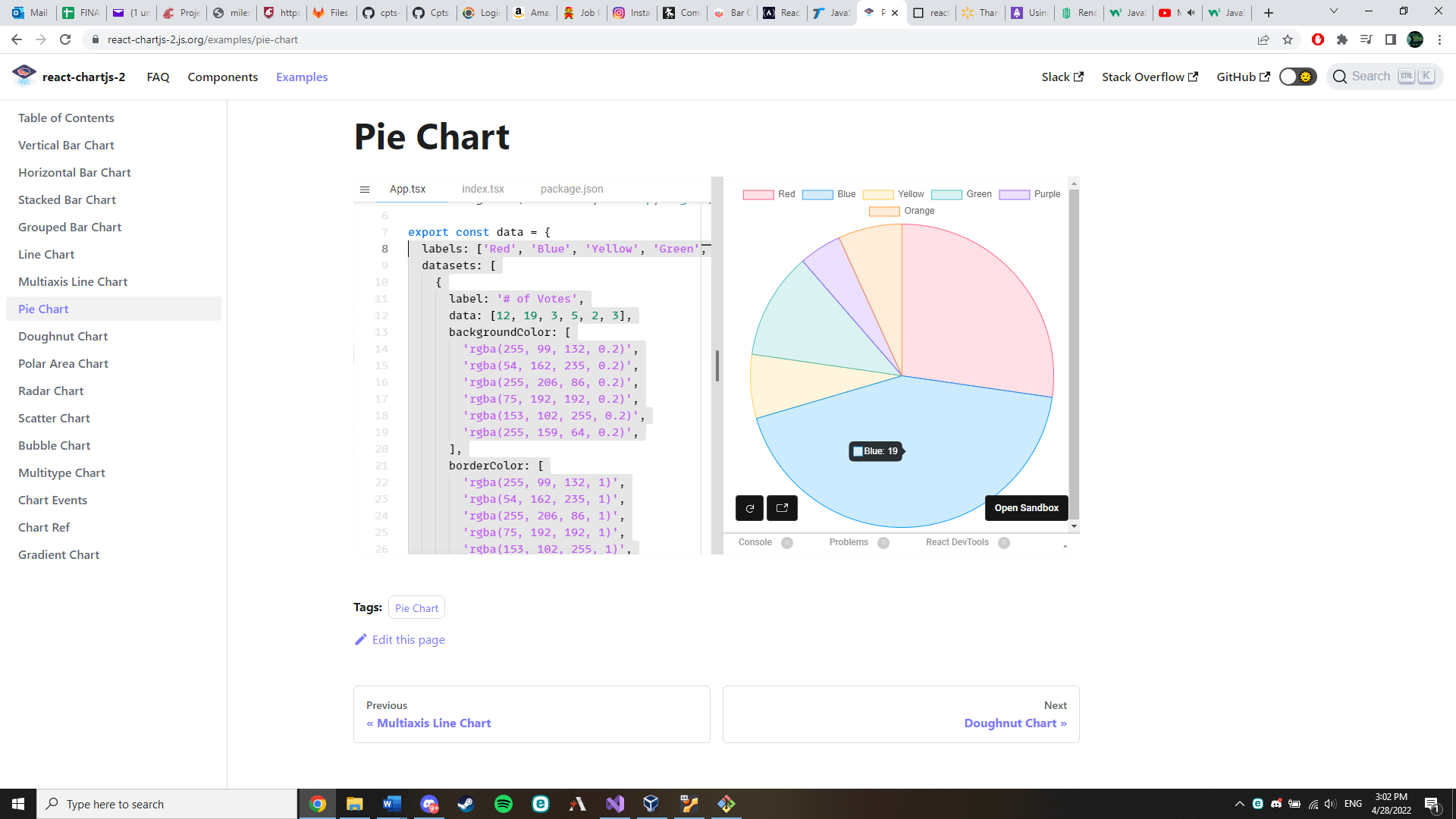
**-Trends:**

// This test renders a dummy pie chart with preset data. Intended to test how the pie chart renders

// on our website

|  |  |
| --- | --- |
| Test Case Type | Unit Test – Trends.render() |
| Test Target | Any component using the Trend Class |
| Test Input | “dummypie”  (this string indicates to the class to render a preset pie chart) |
| Expected Output | <div>  <canvas id={this.ctx} width={this.width} height={this.height}>  </canvas>  <Pie data={testpiedata}/>  </div> |

\*Should render as

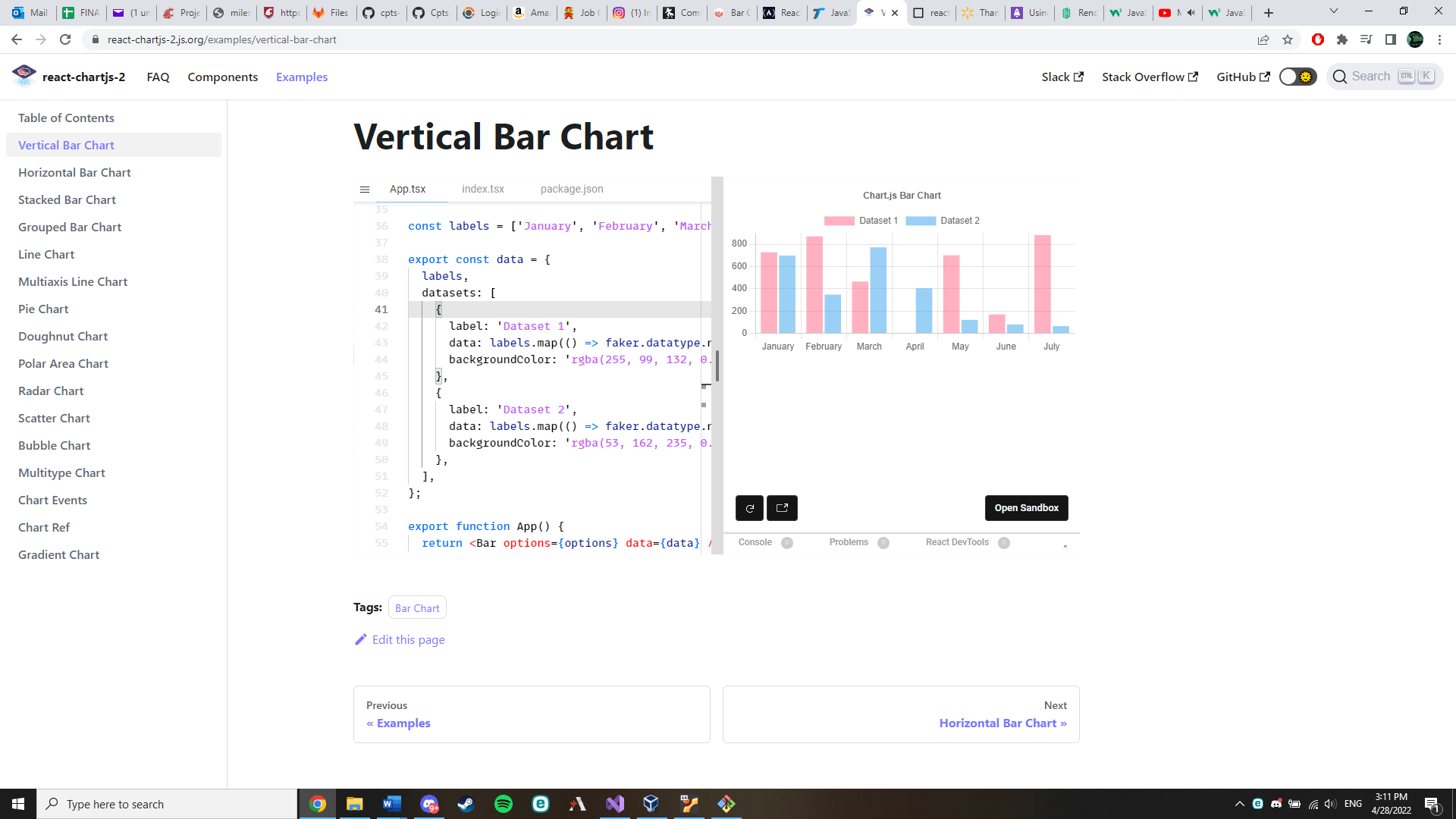


// This test renders a dummy bar graph with preset data. Intended to test how the bar graph renders

// on our website

|  |  |
| --- | --- |
| Test Case Type | Unit Test – Trends.render() |
| Test Target | Any component using the Trend Class |
| Test Input | “dummybar”  (this string indicates to the class to render a preset bar graph) |
| Expected Output | <div>  <canvas id={this.ctx} width={this.width} height={this.height}>  </canvas>  <Bar data={testdata}/>  </div> |

\*Should render as



// This test renders a dummy line graph with preset data. Intended to test how the line graph renders

// on our website

|  |  |
| --- | --- |
| Test Case Type | Unit Test – Trends.render() |
| Test Target | Any component using the Trend Class |
| Test Input | “dummyline”  (this string indicates to the class to render a preset line graph) |
| Expected Output | <div>  <canvas id={this.ctx} width={this.width} height={this.height}>  </canvas>  <Line data={testdata}/>  </div> |

\*Should render as

