

DMIT2008 Assignment 3: React Events, State, and Conditionals

Introduction

This assignment will test everything up to your knowledge of using Events, State, and Conditionals in react. State is one of the largest benefits of using react so it's essential for us to understand this.

Overview of functionality

- The project starter looks like the image below once you install all of the dependencies and run the next.js project.

Our Library

Add a New Favourite

Book Title

Author

Rating

ADD

Favourite Books

Title	Author	Rating
Harry Potter and the Philosopher's Stone	J.K. Rowling	9
The Great Gatsby	F. Scott Fitzgerald	8

- Before you submit the form (but entered in values it should look like this).

Our Library

Add a New Favourite

Book Title

Author

Rating

ADD

Favourite Books

Title	Author	Rating
Lord of the Rings	JRR Tolkien	10
Harry Potter and the Philosopher's Stone	J.K. Rowling	9
The Great Gatsby	F. Scott Fitzgerald	8

- After you submit the form (or clicked the add button) your app should look like this.

Our Library

Add a New Favourite

Book Title

Author

Rating

ADD

Favourite Books

Title	Author	Rating
Lord of the Rings	JRR Tolkien	10
Harry Potter and the Philosopher's Stone	J.K. Rowling	9
The Great Gatsby	F. Scott Fitzgerald	8

- If you try to submit the form with invalid values, you should display an error message under the form. It should look something like this:

Our Library

Add a New Favourite

Book Title
Author
Rating
ADD

Error
Please enter all value correctly.

Favourite Books

search title

Title	Author	Rating
Harry Potter and the Philosopher's Stone	J.K. Rowling	9
The Great Gatsby	F. Scott Fitzgerald	8

- Bonus: include the filter of books it should filter the books based on the title of the book. For example if you search “stone”. Note you’ll have to add the text field and required imports. This should be fully contained within the “FavouriteBooks” component.

Our Library

Add a New Favourite

Book Title
Author
Rating
ADD

Favourite Books

search title
stone

Title	Author	Rating
Harry Potter and the Philosopher's Stone	J.K. Rowling	9

Required Tasks

- Install and run the starter project.
- Import the useState hook and create stateful variable for the books and initialize it with the correct value.
 - Ensure that you passing the right prop to our “FavouriteBooks” component.
- Create stateful variables for our three TextFields in our form for title, author and rating and ensure that the variables have appropriate names.
- When the TextFields change the stateful variables should be updated accordingly.

- Listen to the form submission event using your react knowledge, and execute a handler function (hint, forms in react are the same as forms in plain JS so you might have to stop something from happening).
 - Using your stateful variables (the data from the text fields) update your stateful variable for the book list so that you add the new book to the table in your application. Once you've seen the book added successfully to the table you should reset the stateful variables used in the TextFields.
 - Create a stateful variable that will either show an error message or not. If any of the fields are empty when you submit the form, you should not add another item to the "books" list and you should display the error. If everything is input successfully then you should not see the error message.
 - The error message should use the "Alert" mui component should have the text "Please enter all of the values".
- Note: you should use either the "ternary" method or the "short circuit" method we used in the class to display this.
- Bonus (this is a figure it out on your own piece please don't ask instructor).
 - Add a text field to your favourite books.
 - Filter on the titles that match it.

Marking key

Tasks	Grade	Marks	Total
Initial State of the application Variables <ul style="list-style-type: none"> • useState hook imported correctly from react. • Stateful variables use correct syntax for all of the values asked for (3 text fields, 1 display error, 1 book list). • Stateful variables are initialized with the correct values 		1 5 3	
Events and State on the Text Fields <ul style="list-style-type: none"> • TextFields are listening to the correct event to detect changes • TextFields are using the event.target's value to update each of the text fields stateful value. • TextFields have their "value" prop set to the each corresponding stateful value. 		1 3 3	
Form Submission and Error display <ul style="list-style-type: none"> • Form is listening to the correct event • Form prevents the default action of submitting the form to the server • The books "setter" function is called correct by adding the new book (generated from the stateful variables from the TextFields) to the array of books. • The values of the text fields are reset correctly using the respective "setter" functions • A stateful variable for the error is updated to true if any of the title, rating and author variables are empty. The error variable is updated to false if the TextFields are all valid • A message in the JSX is displayed using either a ternary or a 'short circuit' to inform the user to enter all of the field. 		1 1 5 1 3 3	

Filter Books Bonus <ul style="list-style-type: none"> When the text changes, the books are filtered correctly no matter what the text is. 		[3]	
Formatting and Style <ul style="list-style-type: none"> Code Formatting and Style (run "npm run lint") and fix any errors that come up. Node_modules folder and next folder are included (if you included them it's negative marks on your assignment) 		-3 -3	

Marking Rubric

Marks	5 Marks Criteria
5	Task was completed with the highest of proficiency adhering to best practices and followed subject matter guidelines all tasks were completed to a professional standard.
4	Task was completed well some minor mistakes. Well above average work shows good understanding of the task and high degree of competence
3	Satisfactory work some features missing or incorrectly implemented. Show a moderate level of understanding in the task with room for improvement.
2	Below average work. Task was poorly complete. Show understanding of the task and the requirements to implement but implementation was poorly executed.
1	Some of the task was completed. Showed a lack of understanding in the subject matter and very poorly executed
0	Not completed.

Marks	3 Marks Criteria
3	Proficient shows a high degree of competence in completing task.
2	Capable above average degree of competence in completing task
1	Satisfactory shows a satisfactory degree of competence in completing task.
0	Shows a limited degree of competence in completing task.

Marks	1 Marks Criteria
1	Task Completed satisfactorily
0	Task was not executed.

