Ox09. React Redux Connectors and

Provide (1989) lanning/me)

Front-end JavaScript ES6 React

Projects(/projects/current)

** Weight: 1

Project OArReviewscheemmaaked/corrections/tosereview/ 6:00 AM

An auto review will be launched at the deadline

Project OArreview will be launched at the deadline



Resources

Bead or Watch (users/peers)

- Redux CreateStore (/rltoken/ikKKj2fd SlrduP4NMRcfw)
- Redise Games !//diseendieKkj/2fdpSIrduP4NMRcfw)
- Redux Provider (/rltoken/72p5lYmSlSpGlCod8lUY8A)
- Redux Middleware (/rltoken/JugQ1X52DCCCsOeOkkAiXg)
- Redux Thunk (/rltoken/qakbRbg-38BugU7ReccOOQ)
- Redux devtools (/rltoken/hj2zpx-DjBQuPaT3GjHCiw)
- Redux Reselect (/rltoken/YvZcWXnHZCxtP0gb60ck9w) My Profile(/users/my_profile)





Learning Objectives

At the end of this project, you are expected to be able to explain to anyone (/rltoken/ikYaNedyPMoGKA83CTe1sw), without the help of Google:



- Reglyx eginectors and how to use them
- The different functions you can pass to a connector (mapStateToProps, mapDispatchToPros)
- How to map an action creator to a component using a connector



- HowytPlanaprag(/psymolog/time) creator to a component with Redux Thunk
- What Redux Providers are and how to set up your app's store
- How you can improve a connector's performance using Reselect



• Howaie cited/Redign'ts devirently to debug the state of your application

Requirements (/corrections/to_review)

- Allowed editors: vi, vim, emacs, Visual Studio Code
- All your files should end with a new line
 Evaluation quizzes (dashboards my current evaluation quizzes)
 A README.md file, at the root of the folder of the project, is mandatory
 - All your files will be interpreted/compiled on Ubuntu 18.04 LTS using node 12.x.x and npm

6.x.x



- Pushall of your files, including, package unison and .babelro
- · All of your functions must be exported

Provided files

ashboarddoistdoodraseso_joon

Click to show/hide file contents



Servers(/servers)

dashboard/dist/login-success.json

<u>Click to standbide file son tents ainers/current)</u>

dashboard/dist/notifications.json Tools(/dashboards/my_tools)

Click to show/hide file contents



Video on demand(/dashboards/videos)

Tasks



mandatory

euse the latest das Bodisc project you worked on in the React course 0x09-React_Redux_reducer and install react-redux

Within the App/App. js file:

• Create a function named mapStateToProps. This should connect the uiReducer you created an Myther of its design supposed in that your component is already using

 Import connect from Redux, and connect the mapStateToProps to the component (/)Reno: GitHub repository: alx-react Directory: 0x09-react_redux_connectors_and_providers File: task_0/dashboard/src/App/App.js My Planning(/planning/me) **ு.** Create அதாது நிருக்கு (current) mandatory In the index.js file: QA Reviews I can make(/corrections/to review) Create a store using createStore from Redux that would contain the uiReducer state Implement a provider passing the store that you created to the main App Evaluation quizzes(/dashboards/my current evaluation quizzes) Repo: GitHub repository: alx-react • Difectory unx (dashboards/my curriculums) and providers • File: task_0/dashboard/src/index.js





Concepts(/concepts)



Conference rooms(/dashboards/video_rooms)

2. Test MapStateToProps

mandatory



Servers(/servers)

Export the mapStateToProps function you created if you haven't already, and in the App.test.js file:

- Createlboxes (suiter to testather succitient)
 - Create a test that verify that the function returns the right object when passing the

Flet st∏aotoels(#dafsrhodoncJasn(ds/my tools) isUserLoggedIn: true });



Video on demand(/dashboards/videos)

Should return { isLoggedIn: true }

Tips:



- At Paier st/(uisteys/wieeps) is not functional but you should be able to load the page without crashing
- Remember that the state of uiReducer is using Map from Immutable

Requirements: Discord(https://discord.com/app)

- No error should be displayed within the console
- · All the tests in the project should pass



Repo:

My Profile(/users/my_profile)

GitHub repository: alx-react

 Directory: 0x09-react_redux_connectors_and_providers File: task_0/dashboard/src/App/App.test.js (/)UpdatemapStateToProps mandatory In the App.js file:

My Planning(/planning/me) Update the mapStateToProps function to also pass to the component the value for displayDrawer. It should be connected to the Reducer attribute isNotification of awar visible • Update the render function of the component to use the value displayDrawer coming from the propsinstead of the state (A Reviews I can make (/corrections/to_review) Repo: Evaluation quizzes(/dashboards/my current evaluation quizzes) • GitHub repository: alx-react Directory: 0x09-react_redux_connectors_and_providers File: task_1/dashboard/src/App/App.js Curriculums(/dashboards/my_curriculums) 旨 Concepts(/concepts) Connect your actions creators
Conference rooms(/dashboards/video rooms) mandatory In the App. is file: Servers(/servers)
Connect to the component the actions creators displayNotificationDrawer and hideNotificationDrawer • Yogahnyukkugatha simplifiad yargiqafar the mapDispatchToProps. No need to import bindActionCreators Modify the render function of the component to use the functions passed within the props in Jeda (starbararda/myhitetha) Class component Hepo: Video on demand(/dashboards/videos) • GitHub repository: alx-react Directory: 0x09-react_redux_connectors_and_providers File: task 1/dashboard/src/App/App.js Peers(/users/peers) 0 Discord(https://discord.com/app)

mandatory

5. Refactor your code

In the App. is file: My Profile(/users/my_profile)

- You can delete the old function handleDisplayDrawer
 - You can delete the old function handleHideDrawer
 - (1) Remove any state property related to the display of the drawer
 - Remove any binding in the constructor



You are now passing to your components props. You need to define propTypes and Home(/)
defaultProps



My Planning(/planning/me)



- GitHub repository: alx-react
- DiProjects (0x0)ects/current)ux_connectors_and_providers
- File: task_1/dashboard/src/App/App.js



QA Reviews I can make(/corrections/to_review)

6. Update your tests

Evaluation quizzes(/dashboards/my current evaluation quizzes)

You can now refactor the App.test.js file:



- You don't need to test the functions handleDisplayDrawer and handleHideDrawer since everythinduins all death bloosted of one ingut tric Reutos) mechanism
- You need to update the test you previously created to support the new attribute



Concepts(/concepts)

At this point your app should be functional and able to display/hide the drawer using the Redux



Conference rooms (/dashboards/video rooms)
Remember that the state of unreducer is using Map from Immutable

Repo:

Servers(/servers)

- GitHub repository: alx-react
- Disandboxos by speacentaings (suffert) ors and providers
 - File: task_1/dashboard/src/App/App.test.js



Tools(/dashboards/my tools)

用

Video on demand(/dashboards/videos)

7. Async actions & Thunk middleware

mandatory

mandatory

t's implement the Logins equest / logout actions creators accross the entire application. LoginRequest is calling an API and is Async. Therefore, Redux will not support it. We will need to use a middleware

Discord(https://discord.com/app)
Install redux-thunk within your project. And in the index.js file, apply the middleware to your store

Repo:

- GitHub repository: alx-react
 My Profile(/users/my_profile)
 Directory: 0x09-react_redux_connectors_and_providers

• File: task_2/dashboard/src/index.js



(/)

8. Connect LoginRequest to the App

mandatory



Home(/)

Modify the file App/App.js:



- Commercial property and map it to the login prop
- Modify the component to use the new login function from the props instead of the one within the class



• Refseiorth @ Feings heliteble move any login or logout function and bind

⊀epo:

. QA Reviews I can make(/corrections/to_review)

- GitHub repository: alx-react
- DiEncatoration compizzes (ddashboards/myccorrentne valuatione rquizzes)
 - File: task_2/dashboard/src/App/App.js



Curriculums(/dashboards/my_curriculums)

B. Connectপঞ্চল/জ্ঞান্ত চেণ্টাhe Footer

mandatory



- Create a mapStateToProps function
- Map the user props to the user within the Redux state
- Servers(/servers)

 Connect the Footer component to the function you created
- Modify the render function and remove any use of the Context. Instead use the user prop
- **\)** Sandboxes(/user_containers/current)

Repo:



- GiTABIS(/elastifear/ds/txy+tagle)
 - Directory: 0x09-react_redux_connectors_and_providers



• File: task 2/dashboard/src/Footer.js Video on demand(/dashboards/videos)



Peers(/users/peers)

10. Connect Logout action creator to the Header

mandatory



Discord(https://discord.com/app)

Modify the file Header/Header.js



- Create a mapStateToProps function
- Map the user props to the user within the Redux state
- Connect the Header component to the function you created
- Complete tile / Meach my opprofile int to the logout action creator

 Modify the render function and remove any use of the Context. Instead use the user prop. When the user clicks on the link, it should now dispatch the logout action creator

(/)

Repo:



Home(/)

GitHub repository: alx-react

Directory: 0x09-react_redux_connectors_and_providers



Fille Tyt Pakn In / (a/aslabonam g//nse): / Header/Header.js



Projects(/projects/current)

11. Modify the uiReducer

mandatory

Now that We Reviews I can make fooi references to an evine wentire feedback loop, let's modify a few things within the reducer:

- WEGAITAGACTORIZAGIANSADOSEGS/rest the unereviding the state too one passed within the action
 - When the LOGOUT action is passed, make sure to set the user to null

Curriculums(/dashboards/my curriculums)



- GitHub repository: alx-react
- Concepts(/concepts)
 Directory: 0x09-react_redux_connectors_and_providers
- File: task_2/dashboard/src/reducers/uiReducer.js



Conference rooms(/dashboards/video_rooms)



Servers(/servers)

12. Modify the test suites

mandatory

Sandboxes(/user_containers/current)

Modify the test suites of the different components you modified:



In The Is (Adasthes transfer / Improvious): est. js , and Header. test. js to import the Stateless components instead of the connected component



- Remove any use of the mount function, and convert everything to use the shallow function
- You should remove any use of set state within the tests and pass directly the props to the stateless components
- Remove any test linked to the login, logout function within App, and Header



Add a test in uiReducer to support the new action you just created Peers(/users/peers)

Tips:



- At this point your app should be functional and able to display/hide the drawer, login/logout using Discord(https://discord.com/app) the Redux state
- Remember that the state of uiReducer is using Map from Immutable



You can now see that your components logic is simplified. They only respond to props change. The logic is happening within the action creators

Requirements: My Profile(/users/my_profile)

Do not forget to add defaultProps and PropTypes to any component receiving props

No error should be displayed within the console

All the tests in the project should pass

(/)

Repo:



- Home(/)GitHub repository: alx-react
- Directory: 0x09-react_redux_connectors_and_providers

 Filey中akn紹介的Pared/App/App.test.js, task_2/dashboard/src/Footer/Footer.test.js,

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task_2/dashboard/src/Header/Header.test.js, task_2/dashboard/src/Header/Header.test.js

QA Reviews I can make(/corrections/to_review)

13. Understand how to use the Redux Chrome extension

mandatory

? Evaluation quizzes(/dashboards/my_current_evaluation_quizzes) Install the Redux Dev lools extension on your Chrome browser:

- Modify the index.js to support the extension
- Use the application and note the different actions being registered when you are logging in / loggingcuttms(/dashboards/my_curriculums)
- Note that a version of the state is saved along the different actions and you can jump at a different moment of the user journey



Concepts(/concepts)



- Read the documentation of the extension to learn how to support the Chrome extension as well as Gpeference representation of the extension to learn how to support the Chrome extension as well as Gpeference representation of the extension to learn how to support the Chrome extension as well as Gpeference representation of the extension to learn how to support the Chrome extension as well as Gpeference representation of the extension to learn how to support the Chrome extension as well as Gpeference representation of the extension to learn how to support the Chrome extension as well as Gpeference representation of the extension to learn how to support the Chrome extension as well as Gpeference representation of the extension to learn how to support the Chrome extension as well as Gpeference representation of the extension of t
- This extension can be one of the most powerful tool to debug an application. Make sure to become familiar with it Servers(/servers)





Sandboxes(/user_containers/current)

- GitHub repository: alx-react
- Directory: 0x09-react_redux_connectors_and_providers



• Fileoda (dashbashda (ma/tools) ndex.js

Elcheck sVides സ്വാദ്യ demand(/dashboards/videos)

Peers(/users/peers) 14. Combine store: Root reducer

mandatory

ance yo**Qiseoed(https://kdisooed.eduo/app)**r your application, you will need to combine them into the store.

Create a new file reducers/rootReducer.js, in this file, export a rootReducer:



- the root should contain every reducer
- courses maps to courseReducer
- notifications maps to notificationReducer
 My Profile (Users/My profile)
- ui maps to uiReducer



(/)
• GitHub repository: alx-react



• Directory: 0x09-react_redux_connectors_and_providers

- - File One 4/dashboard/src/reducers/rootReducer.js



My Planning(/planning/me)

15. Combine store: modify the application

mandatory



Projects(/projects/current) on the index.js, create the store using the root reducer instead of only the ui reducer:



 Any component connected to the state will probably need to be updated since you added a ne ନୁକ୍ତ ନୁକ୍ତ lean make(/corrections/to_review)

Evaluation quizzes(/dashboards/my current evaluation quizzes)

- GitHub repository: alx-react
- Directory: 0x09-react_redux_connectors_and_providers



File: task 4/dashboard/src/index.js Curriculums(/dashboards/my_curriculums)



Concepts(/concepts)



6. Combinerstore parited the litests / video rooms)

mandatory

Modify the test suites: Servers(/servers)

- In the App. test. js, modify mapStateToProps to correctly work with the new format of the reducer
- Createlloxes (Reduce on tainers) sufficient the root reducer's initial state for the following structure:



Tools(/dashboards/my tools)

courses: Map {},



notifications: Map {}, ui: Video (an demand(/dashboards/videos)

田

Requirements:



- Peers(/users/peers) No errors in the browser's console
- All tests should pass



Use combine Reducer to create the root reducer Discording ps. // discord.com/app)

Repo:

- GitHub repository: alx-react
- Directory: 0x09-react_redux_connectors_and_providers My Profile(/users/my_profile)

File: task_4/dashboard/src/App/App.test.js,task_4/dashboard/src/reducers/rootReducer.test.js

(/)

♣7. Conளைக்ருotifications: New Action Creator

mandatory

We now know how to connect a simple component to a reducer. Let's work on connecting a more My Planning (notational) map of the the entire API.

Add the following three action creators to notificationActionCreators.js

Projects(/projects/current)

- setLoadingState whose parameter is a boolean. It will send the SET_LOADING_STATE action and the boolean.
- setAMei√iewetiemen/wheremeaneteniesameny. It will send the FETCH_NOTIFICATIONS_SUCCESS action with the data.
 - fetchNotifications (which does not have a parameter). Calling it will dispatch sevaluation quizzes (dashboards/my, qurrent evaluation_quizzes)
 - It fetches /notifications.json
 - Once the fetch is realized, it will dispatch setNotifications with the data
 - At the end of the query it sets the loading state to false again Curriculums(/dashboards/my_curriculums)

Repo:

Concepts(/concepts)

- GitHub repository: alx-react
- Directory: 0x09-react_redux_connectors_and_providers
- Q
- File ofference rooms // dashboards/videon-rooms ationActionCreators.js
- Servers(/servers)

Sandboxes(/user_containers/current) 18. Connect notifications: Improve reducer

mandatory

In the furtonal/dashira@ads/mnkdaads/r within notificationReducer.js:

- Make sure to add a loading attribute to the initial state.
- Movitified the demarkation of the data coming from the API

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 Movitified the AP
 - Create a SET_LOADING_STATE case and update the state accordingly
 - Modify the FETCH_NOTIFICATIONS_SUCCESS case to perform a mergeDeep with the data Peers(/users/peers)

Repo:

- Discord(https://discord.com/app)
 GitHub repository: alx-react
- Directory: 0x09-react_redux_connectors_and_providers
- File: task_5/dashboard/src/reducers/notificationReducer.js

Q

<u>1</u>9. Connect notifications to the reducer

mandatory

In the Notifications. is component:



- Map the prop listNotifications to the messages within the notifications state
- Map the action fetchNotifications to the component
- In componentDidMount, call fetchNotifications



My Planning(/planning/me)

Repo:



- Projects(/projects/current)
 GitHub repository: alx-react
- Directory: 0x09-react_redux_connectors_and_providers



File: A treshe 5/ dashboard or of Notibhio at ions (Notibhio at ions)

?

Evaluation quizzes(/dashboards/my current evaluation quizzes)

20. Connect notifications: clean up

mandatory



Curriculums(/dashboards/my curriculums)

With this new behavior, let's clean up old functions and test data



- Delete Notification Item Shape.js
- Remove the notification list and delete markNotificationAsRead within App.js



Conference rooms(/dashboards/video rooms)

Repo:



- GitHub repository: alx-react Servers(/servers)
- Directory: 0x09-react_redux_connectors_and_providers
- File: task_5/dashboard/src/App/App.js



Sandboxes(/user_containers/current)



Tools(/dashboards/my tools)

Connect notifications: update the test suites Video on demand(/dashboards/videos)

mandatory

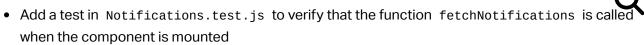
Modify the test suites to pass the tests:

- Update notificationReducer.test.js to support the new attributes and default state
- Clears // users /rosetrs) s for the function you just removed
- Modify Notifications.js and Notifications.test.js to make sure that every tests pass



Discord(https://discord.com/app)

Add new tests:



- Add a test for setLoadingState, setNotifications, and fetchNotifications to verify that the my radii la mase is venight a mise pro-
- Add a test for SET_LOADING_STATE to verify that it updates the reducer correctly

Tips:



- At this point, when you load the page, you should be able to see the list of notifications coming (/) from the API using the developer tools or when clicking on the notifications toggle
- Use some CSS to make the notifications panel readable



- Look at yalueSeq from Immutable to iterate on your list of notifications without having to use toJS()

Requirements:
My Planning(/planning/me)

- Make sure to update the different Proptypes so you don't have any errors in the console
- Make sure to create the new actions that the action creators are using Projects(/projects/current)

Repo:



- QA Reviews I can make(/corrections/to_review) GitHub repository: alx-react
- Directory: 0x09-react_redux_connectors_and_providers
- Filevaluations/quaisaboolddshboolads/mgreundentfievaluationedquiszesest.js,

task_5/dashboard/src/App/App.test.js,

task_5/dashboard/src/Notifications/Notifications.js,

task_5/dashboard/src/Notifications/Notifications.test.js,

taGurriculum 50daah boordo myn sundeulum ation Creators.test.js



Concepts(/concepts)

22. Selectors

mandatory

Conference rooms/dashboards/video_rooms) always use selectors when you can. Let's modify the Notifications connector to reuse the selector we built in the previous project:



- Upstateens(/sefvees)ions.js to use getUnreadNotifications
- Map the markAsAread action creator to the component, and use it for

markNotificationAsRead Sandboxes(/user_containers/current)

Tips:



At this point, when you load the page, you should be able to see the list of notifications. Clicking loois/dashboards/my tools) on one notification should make it disappear from the list

Requirements:



- Video on demand(/dashboards/videos)
- Make sure to update the selector to use the same valueSeq you created previously
- Make sure to update the tests to work as expected
- Make sure to create the new actions that the action creators are using



Peers(/users/peers)

Repo:



- Githischored bots it out/diagourd: each/app)
 - Directory: 0x09-react_redux_connectors_and_providers
 - File: task_6/dashboard/src/Notifications/Notifications.js, task_6/dashboard/src/Notifications/Notifications.test.js



My Profile(/users/my_profile)

<u>2</u>3. Connect courses: create a course selector

mandatory

In selectors/courseSelector.js, create a selector that will:



- Get all the course entities from within the reducer Home(/)
 Return a List using valueSeq from Immutable

.Write a new file courseSelector.test.js, that will verify that the selector is working correctly My Planning(/planning/me)

Repo:

Projects(/projects/current)

- GitHub repository: alx-react
- Directory: 0x09-react_redux_connectors_and_providers
- File. A Paskie we dasan marke Governs tions to Lovie we selector. is, task_7/dashboard/src/selectors/courseSelector.test.js
- ? Evaluation quizzes(/dashboards/my current evaluation quizzes)

4. Connect courses create a fetch courses function

mandatory



actions/cepts/Actiencyeators.js:

 Create a new function named fetchCourses, that will query the API in courses.json (provided in the project description, put it in your dist folder) Conference rooms (/dashboards/video_rooms)

When the API returns the data, dispatch the action setCourses

courseActionCreators.test.js, create a test to verify that the fetch is working correctly Servers(/servers)

>Repo:

Sandboxes(/user_containers/current)

- GitHub repository: alx-react
- Directory: 0x09-react_redux_connectors_and_providers
- File dash boards/my/tools) actions/courseActionCreators.js, task_7/dashboard/src/actions/courseActionCreators.test.js
- H Video on demand(/dashboards/videos)

Peers(/users/peers) 5. Connect the courses component

mandatory



Cour Bistordiffice / Miscothecopmannent to:

- The three action creators: fetchCourses, selectCourse, and unSelectCourse
- Connect the data to the list of courses using getListCourses selector
- When the component mount, call the action fetchCourses

Create an ew function erschange and with the create and with the create and with the create and the create and



- It will take two arguments: id (string), checked (boolean)
- When checked is true, call the action selectCourse with the id
- When checked is false, call the action unSelectCourse with the id

Modify CourseListRow:



Home(/)
Pass a new prop, isChecked, to the component that will pass the isSelected attribute coming from the state of the reducer



- Pages this near change Remaining tion to the component
- Modify the component to not use its local state anymore

the file CourseList.test.js, create two new tests:
Projects/projects/current)

- Verify that the action is dispatched when the component is mounted
- Verify that the two actions are correctly dispatched when the onChangeRow function is called QA Reviews I can make(/corrections/to review)

Tips:

- At this point, when you load the page and you log in, you should be able to see the list of courses. Evaluation quizzes/dashboards/my current evaluation quizzes)

 Make sure that everything is working correctly using the developer tools or using the Redux tool
 - When checking or unchecking a row, you should see the state in the Redux tool updated. You should also see the change on the UI



- Be careful that the API is sending Strings instead of Number for the IDs. You will probably need to adaptriculums(/dashboards/my_curriculums)
- Delete the CourseShape file now
- equirer contents)
 - Make sure to update the tests to work as expected

Conference rooms(/dashboards/video_rooms)

Repo:



- Giff PUNGENOSITUP(S) alx-react
- Directory: 0x09-react_redux_connectors_and_providers
- File: task_7/dashboard/src/CourseList/CourseList.js, Sandboxes(/user_containers/current) task_7/dashboard/src/CourseList/CourseList.test.js



Tools(/dashboards/my tools)

26. Memoized selectors: Redux Reselect

mandatory

Video on demand(/dashboards/videos)

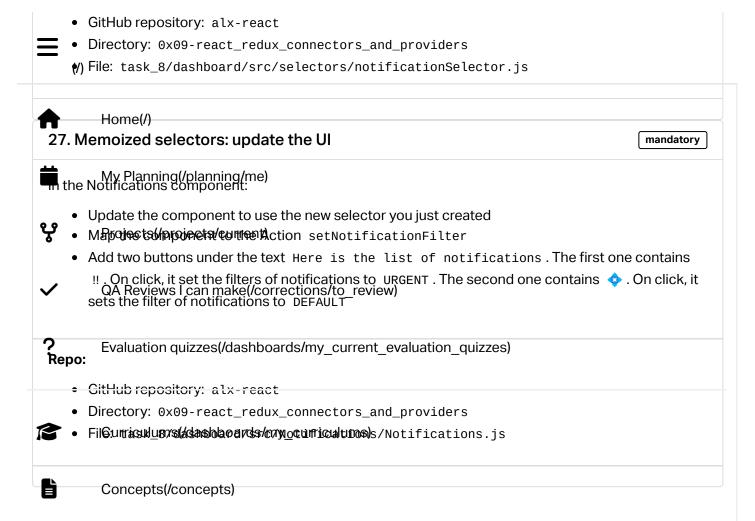
Our current selectors are useful but they are not really performant. Imagine a very long list of notifications with multiple filters on the type and on the read status. This would require a lot of resources to compute. Memoized selectors are very powerful in this sense.

stall Reবিয়ে মের্ডিজ্ঞান্ত মিন্সার্থ streate a new selector named getUnreadNotificationsByType in notificationSelector.js:



- ThDiscolections subdiscorrollations through the filter, and the list of notifications
 - When the filter is set to default, it should return all the unread notifications
 - When the filter is set to urgent, it should return all the unread and urgent notifications
 - Delete getUnreadNotifications

My Profile(/users/my_profile) Repo:





mandatory

Notif**jeatare(/setre**ts)js , add two new tests:

- Clicking on the first button should call setNotificationFilter with URGENT
- Clicking on the second hytten should pall set Notification Filter with DEFAULT

In notificationSelector.test.js:



- Uptowie (the shie o and sheets too labric correctly
- Create a new test to verify that the selector returns unread urgent notifications when the filter is set

Video on demand(/dashboards/videos)
Tips:

 At this point, you should be able to load the notifications panel, filter the list using the two new buttons, and mark items as read



 Make sure to update the tests to work as expected Discord(https://discord.com/app)

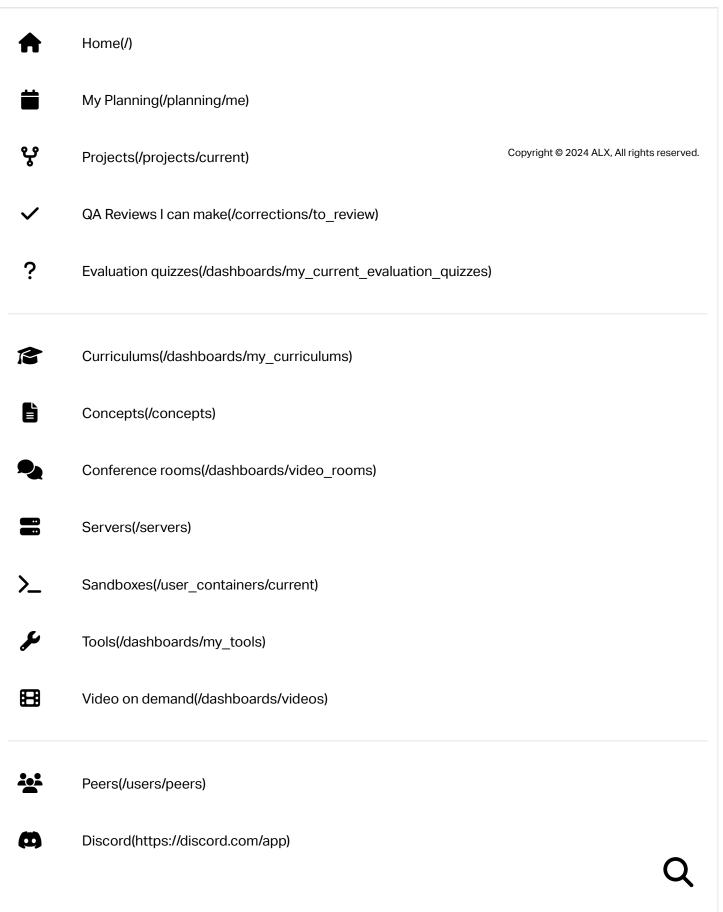
Repo:



- GitHub repository: alx-react
- Directory: 0x09-react_redux_connectors_and_providers
 My Profile(/users/my_profile)







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