Developer Applicant Exercise

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Contents

Exercise Brief

Applicants are to produce a JS SPA featuring a responsive design that accurately represents the provided prototypes. The application is to pull a list of video games from an API, manipulate the response, and display the result to the user whilst enabling them to filter the list.

This exercise aims to test your competency in the following key areas:

- Ability to take a static design and create an accurate, functioning representation.
- Ability to transpose a desktop layout design for a mobile viewport.
- General JavaScript competencies, core fundamentals and popular frameworks.
- Async JavaScript code (Observable / Promise / Async Await).
- API interaction and data transformation.
- CSS competency including responsive design.
- Project setup (Package managers, bundlers, task runners, CLIs).

Requirements

Layout and Design

Applicants are requested to provide a 2-page, responsive SPA that replicates the following design and layout.

Typography

Font sizes are open to interpretation by the applicant to ensure legibility on all viewports, but should closely match the provided designs.

Headings / labels / buttons	Montserrat (500 / 600) https://fonts.google.com/specimen/Montserrat
Body	Mulish (500e) https://fonts.google.com/specimen/Mulish

Colours

Body background	Vertical linear gradient #081221 to #03080f
Card / panel background	#0e1a2b
Headings / button text / labels	#ffffff
Text	#c1d1e8
Input background	#182c47
Buttons / accent blue	#5692e8

Homepage / Video Games Page Design – Desktop View

VIDEO

VIDEO GAMES   **CONTACT**

Filter Results

Name (contains)

Text string

Minimum Score

1 - 10

Order By

↑   Release Date   ▼

Score

Name

Clear

Game Title
Release Date: DD/MM/YYYY

[Summary] Trysail transom furl Sea Legs scallywag Jack Ketch chandler mizzenmast reef sails skysail. Shiver me timbers loot bucko belaying pin Sea Legs boom gunwalls booty jury mast fore. Pressgang knave chantey Nelsons folly dead men tell no tales Sea Legs spyglass booty Jack Tar yardarm. Sea Legs coxswain long clothes Yellow Jack ballast careen gunwalls line Gold Road Sail ho. Dead men tell no tales quarter fore walk the plank jib stern...

9

Game Title
Release Date: DD/MM/YYYY

[Summary] Trysail transom furl Sea Legs scallywag Jack Ketch chandler mizzenmast reef sails skysail. Shiver me timbers loot bucko belaying pin Sea Legs boom gunwalls booty jury mast fore. Pressgang knave chantey Nelsons folly dead men tell no tales Sea Legs spyglass booty Jack Tar yardarm. Sea Legs coxswain long clothes Yellow Jack ballast careen gunwalls line Gold Road Sail ho. Dead men tell no tales quarter fore walk the plank jib stern...

7

Game Title
Release Date: DD/MM/YYYY

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5

Game Title
Release Date: DD/MM/YYYY

[Summary] Trysail transom furl Sea Legs scallywag Jack Ketch chandler mizzenmast reef sails skysail. Shiver me timbers loot bucko belaying pin Sea Legs boom gunwalls booty jury mast fore. Pressgang knave chantey Nelsons folly dead men tell no tales Sea Legs spyglass booty Jack Tar yardarm. Sea Legs coxswain long clothes Yellow Jack ballast careen gunwalls line Gold Road Sail ho. Dead men tell no tales quarter fore walk the plank jib stern...

2

Game Title
Release Date: DD/MM/YYYY

[Summary] Trysail transom furl Sea Legs scallywag Jack Ketch chandler mizzenmast reef sails skysail. Shiver me timbers loot bucko belaying pin Sea Legs

2

Homepage / Video Games Page Design – Tablet View

VIDEO GAMES

CONTACT

Filter Results

Name (contains)

Text string

Minimum Score   Order By

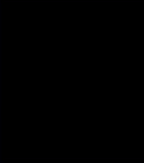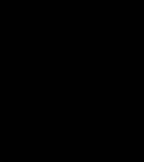1 - 10   ↑   Release Date   ▼   Clear
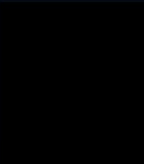
Score

Name

Game Title
Release Date: DD/MM/YYYY

[Summary] Trysail transom furl Sea Legs scallywag Jack Ketch chandler mizzenmast reef sails skysail. Shiver me timbers loot bucko belaying pin Sea Legs boom gunwalls booty jury mast fore. Pressgang knave chantey...   9
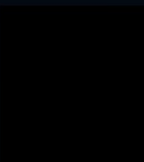
Game Title
Release Date: DD/MM/YYYY

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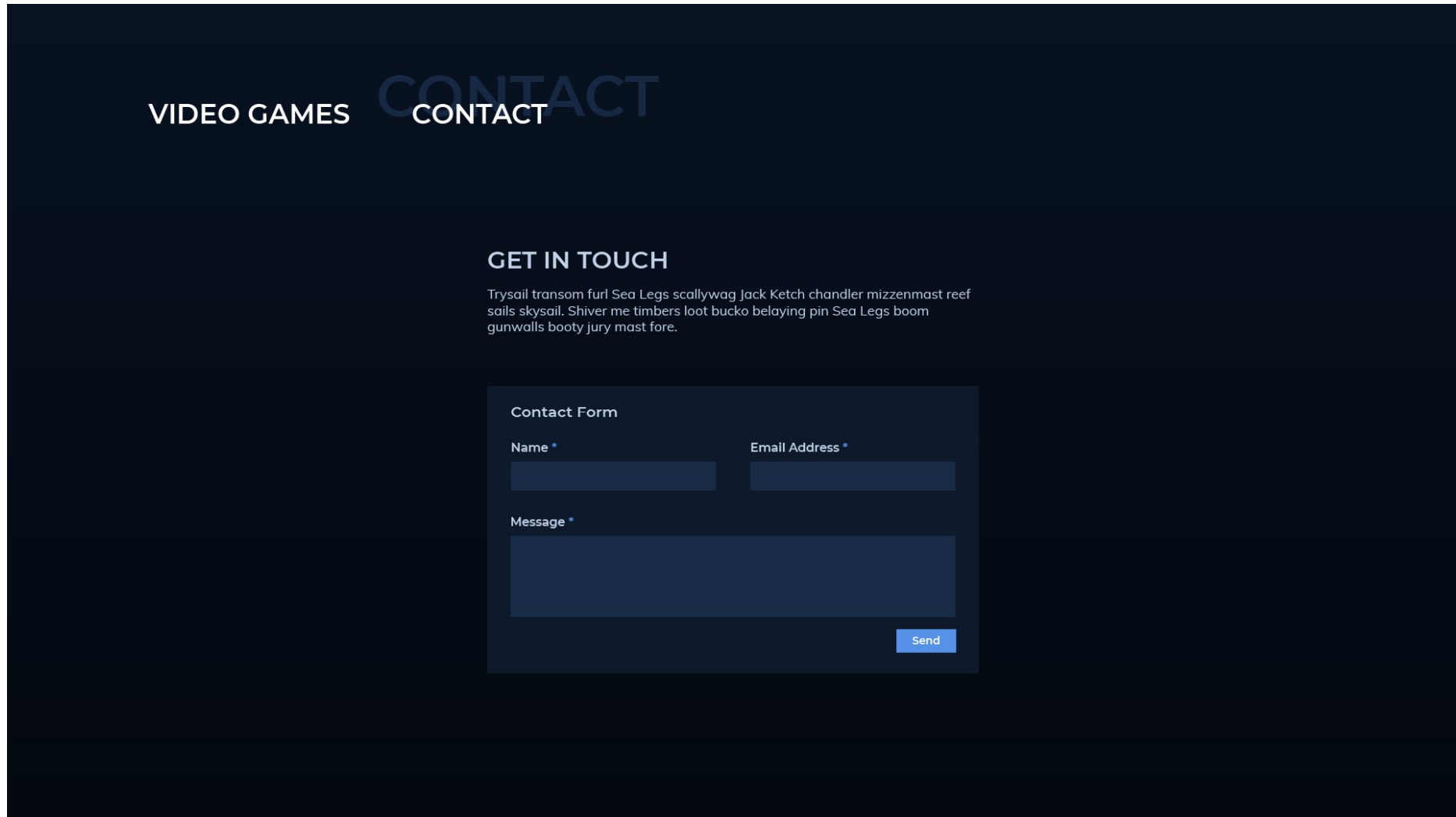
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Release Date: DD/MM/YYYY

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Homepage / Video Games Page Design – Mobile View

VIDEO GAMES

CONTACT

Filter Results

Name (contains)

Text string

Minimum Score

1 - 10

Order By

↑ Release Date ▼

Score

Clear

Name

9

Game Title
Release Date: DD/MM/YYYY

[Summary] Trysail transom furl Sea Legs scallywag Jack Ketch chandler mizzenmast reef sails skysail. Shiver me timbers loot bucko belaying pin Sea Legs boom gunwalls booty jury mast fore. Pressgang knave chantey...

7

Game Title
Release Date: DD/MM/YYYY

Contact Page – Desktop View

This form does **not** have to function when submitted. It is assumed that the applicant will be able to take this design and create an appropriate mobile layout.

Functionality

Upon page load, the SPA should immediately begin **asynchronously** querying the API which will return a list of 100 video games after a 2 second delay. The application should then display the results as per the design.

The application should break to the mobile layout at an appropriate viewport width, scaling fonts and UI elements accordingly.

Once loaded, the user should be able to use the search inputs to filter the returned games. In production you would of course request smaller, filtered datasets via the API and paginate rather than pulling all data and filtering locally. This aims to test your ability to manipulate arrays of objects in various ways.

Pressing the "Clear" button on the filters should reset the filter and display all 100 results **without** re-querying the API.

Applicants should consider the user experience when loading data from an external source asynchronously and implement an appropriate solution to keep the user informed of the pending activity.

JS Frameworks / Targets

Applicants may use their JS framework of choice from: Angular/React/Vue/Svelte. TypeScript is encouraged but not required. The Applicant is free to use their bundler of choice (Webpack, Snowpack, Parcel, Rollup).

Applicants are encouraged to use the latest technology available without concern for production readiness, including features as those introduced in releases as new as ES11 as well as newer CSS capabilities such as Grid. This is the reason the use of TypeScript is recommended, as several newer JS features have been available for a while and are simply transpiled into fallback functions for older JS targets.

Backend / API

The requested solution should not require any backend resources and Applicants are not required to create a local server. The JSON data required for this exercise can be pulled by sending a GET request to https://public.connectnow.org.uk/applicant-test/.

Code Quality

Both the source code, and the functioning solution will be assessed as part of the application. This is the reason the use of modern features is encouraged; the quality and conciseness of your code will be a key focus in the assessment of all submissions as well as the functioning solution.

Submitting

The requested solution does not require hosting and should run locally. Therefore, the source code must be available to ConnectNow and the solution must build and run on the assessor's workstation. It is strongly advised to follow standard conventions and avoid any OS-specific setup.

Applicants are advised to pursue a simple solution such as a GitHub repo, but Applicants may share their project via other means such as a zip file sent to **info@connectnow.org.uk**. **As always, please ensure the node_modules folder is omitted along with any personal credentials.**