2020-11-04 - Front-End 2nd Chance Exam

Mondragon Unibertsitatea.

Computer Science Degree, 3rd course: Web Engineering I.

You will have 2h to create a web page following the descriptions below.
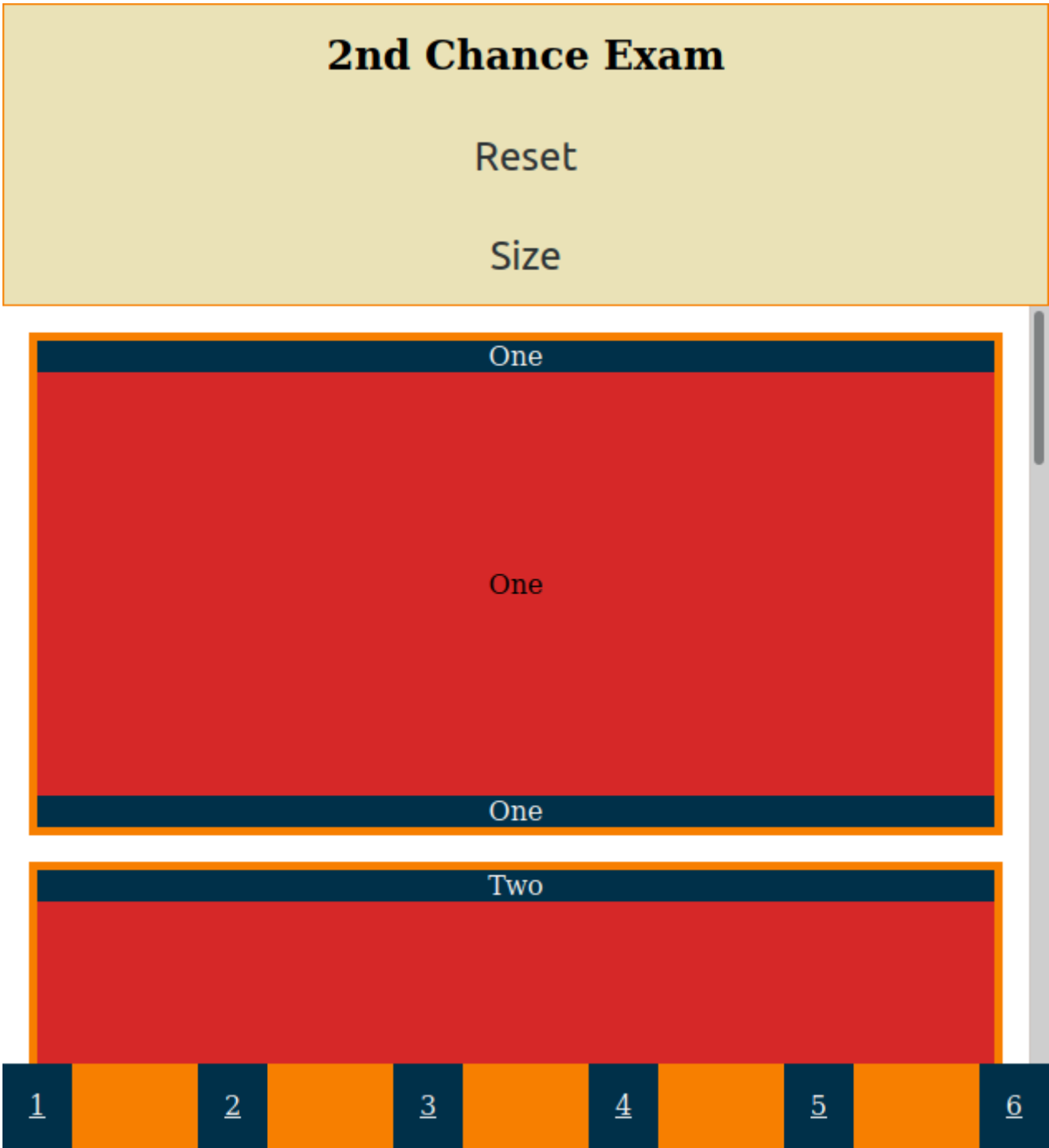
Images

Small layout

Image 1: Small layout.

Medium layout

Image 2: Medium layout.

Large layout

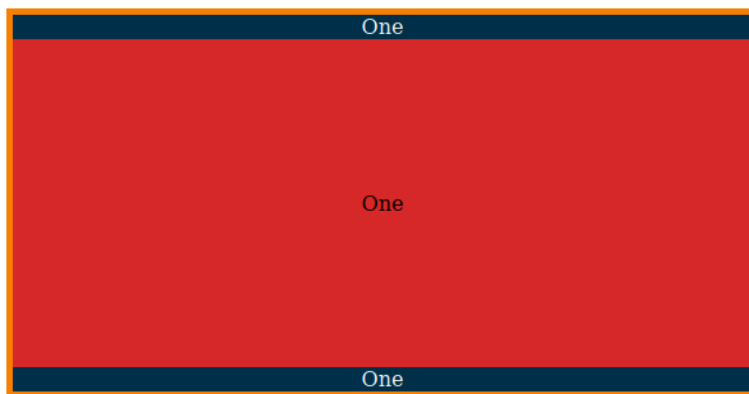*Image 3: Large layout.*

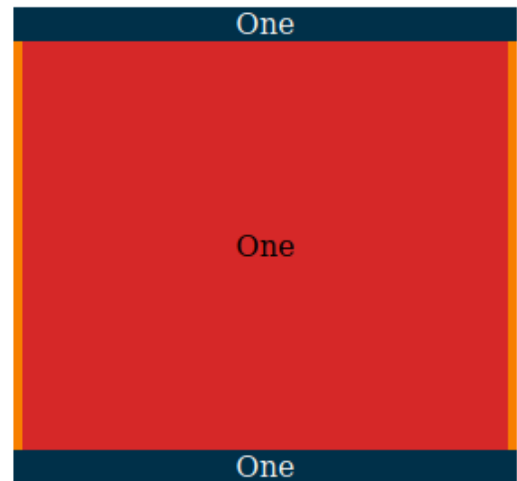**Cards layout**

Image 4: Card (small layout).

Image 5: Card (medium & large layout).

1. Content

The web page will have 3 main parts:

1. Top Part.
2. Central part.
3. Navigation.

1.1. Top part

It should have 3 elements:

1. The title.
2. "Reset" button
3. "Size" button

1.2. Central part

There will be 6 cards, with:

1. A top part.
2. A content part.
3. A bottom part.

1.3. Navigation

Navigation will have a navigation item per card. Each navigation item will move you to the related card.

Styling

Using a mobile-first design, create a web page with the following styling.

Colors:

- one: #003049
- two: #d62828
- three: #f77f00
- four: #fcbf49
- five: #eae2b7
- Selected: steelblue

2.1. Layouts

There will be 3 different layouts:

- Small layout (<720px)
    - See image 1.
- Medium layout (>720 & <1024px)
    - See image 2.
- Large layout (>1024px)
    - See image 3.

2.2. Top styling

Do NOT use flexbox nor Grid in this part!!!

- Top part must not have any space inside or outside its border.
- It should have a orange border (color 3).
- Top items:
    - Size of the text: 1.2rem
    - The title must be bold.
    - There shoud be a space between their imaginary border and their content.
    - When the mouse hovers an action (Reset & Size), their background color will be "steelblue".

Small layout:

- There shoud be no space between top items.

Medium & large layouts:

- Top items will be in the same line in this layout.
- Title will ocuppy exactly 50% of the parent, and each action will occupy exactly 25% of the parent.
- Top items will have a border (same as parent).
- Top items will have a space of 1rem outside and inside their border.

2.3. Central part styling

- Cards will have orange color (color 3).
- Cards' content parts will have red color (color 2).
- Cards' bottom and top parts will have dark color (color 1).
- There will be a space between the imaginary border of the central part and its content.
- There will also be a space between the imaginary border of the cards and their content.
- Cards content part (red part), will have 256px of height. Its content should be centered both vertically and horizontally.

Small layout:

- Each card will be in a new line.
- There will be a space between cards.
- **WARNING! In small layouts this will be the only part with scrolling bar. Top part and navigation will always be visible**.

See image 4.

Medium and large layouts:

- There will be 2 card columns in medium layout and 3 card columns in large layout.
- Each card's top&bottom part should appear over the content and occupying the entire width.
- **In medium and large layouts the entire page will scroll, not only the central part.**.

See image 5.

2.4. Navigation styling

- Navigation will be orange (color three).
- Navigation items will be dark (color one).

Small layout:

- Navigation should occupy the entire width of the page in the small layout.
- The space between the items should adapt automatically to the size of the viewport.

See image 1.

Medium layout:

- The navigation will occupy 1/5 of the width of the page and the entire height.
- All navigation items shoud be in the top, but they should have a space between them.

See images 2 & 3.

3. Functionality

If you are not able to make exactly what it was asked, try to do something similar, you may get some points depending on it's complexity/similarity.

3.1. Select

When you click anythink in a card, the related navigation item will be selected.

e.g. if you click "One" text, navigation item with text "1" will be selected:

Card selection

Image 6: Card 1 clicked.

Image 7: Card 1 and 3 clicked.

If you click again, navigation item will be unselected.

3.2. Size

When "Size" button is clicked, the application will wait 2 seconds and then the selected cards will ocuppy 2 columns instead of 1. Moreover, navigation items will be reseted (cards will be unselected).

If the selected card already occupies 2 columns, it should return to occupy 1 column.

Card size

Image 8: Cards 1 & 5 resized.

In small layout nothing will be changed, only in medium and large layouts.

3.3. Reset

All the changes will reset, returning to the starting point.

Evaluation

- Top styling: 1p.

- Main layout: 1p.

- Card styling: 1p

- Navigation: 2p.

- Selecting cards: 2p.

- Resizing cards: 2p.

- Reset: 1p.

Not only functionality will be evaluated, but also simplicity, clean coding and also maintainability.

So: `it works != finished`.