

## Final Exam Practical – Favorite Vegetables

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In this practical you need to create a React Native app with Expo to build a simple app that **displays a list of 10 different vegetables** and allows the user to **tag some as "favorites"** to display a **Favorites List**

Requirements	Marks
<p><u>The <b>app main screen</b> (Vegetables) should display the following:</u></p> <ol style="list-style-type: none"> <li>1. A <b>title</b> with the student's FOL username + "_FINAL" (<b>FOL_USERNAME_FINAL</b>)</li> <li>2. A <b>scrollable list</b> of the provided <b>vegetable images</b> with <b>borders that change color</b></li> <li>3. A <b>title</b> above the scrollable list that switches between <b>"All Vegetables"</b> and <b>"Favorites Only"</b></li> <li>4. A <b>button that toggles</b> the list between <b>"All Vegetables"</b> and <b>"Favorites Only"</b></li> </ol>	4
The <b>text of the button</b> (#4) changes between <b>"Show Favorites"</b> and <b>"Show All"</b> accordingly	2
App data is acquired by <b>importing</b> the dictionary (object) from the <b>vegetables.js</b> file	2
<b>Clicking on an image of the list</b> brings the user to a <b>Vegetable Details</b> screen	2
<p><u>The <b>app details screen</b> (Vegetable Details) should display the following:</u></p> <ol style="list-style-type: none"> <li>5. A text <b>title</b> with the <b>name of the selected vegetable</b></li> <li>6. The <b>image for the selected vegetable</b> with <b>border that changes color</b> (same as main screen)</li> <li>7. A <b>text</b> indicating the <b>place of origin</b> of the vegetable (according to data file provided)</li> <li>8. A <b>button that toggles</b> the <b>favorite status</b> of the vegetable</li> <li>9. A <b>button</b> (or back arrow) <b>to return</b> to the main screen <b>without modifying the favorite status</b></li> </ol>	5
The <b>color of the border</b> of a vegetable image ( <b>#2, #6</b> ) <b>changes black to gold</b> if the vegetable is <b>favorited</b> and <b>changes back from gold to black</b> if the vegetable is <b>removed from favorites</b>	5
The <b>toggle favorite</b> button ( <b>#4</b> ) automatically <b>returns to the app to the main screen</b>	2
The list ( <b>#2</b> ) in <b>"Favorites Only"</b> mode shows <b>only vegetables marked as favorite</b>	4
When there are <b>no favorited vegetables</b> and the list ( <b>#2</b> ) is set to <b>"Favorites Only"</b> , it should display the text <b>"List is Empty"</b> (or some other text to that effect)	4
<b>Total Marks</b>	<b>30</b>
<b>Deductions</b>	<b>Amount</b>
Missing student <b>FOL name header</b>	<b>-10%</b>
Submitted code is <b>over 80% the same the same</b> as reference code	<b>up to -25%</b>
Submitted video <b>fails to show working requirements</b> as detailed in the <b><u>Video Script</u></b>	<b>up to -25%</b>
Missing <b>video recording</b> in submission	<b>-50%</b>
Missing <b>source code</b> in submission	<b>-50%</b>

## Submission Requirements

- Your **zipped (.zip) source code files** (no node\_modules folder)
- A **video recording (no powerpoint screenshots)** of the app **demonstrating all requirements**

## Video Script

This is a script of steps to follow to ensure all requirements are showcased in the video:

1. Open the app and **scroll to the bottom of the list showing all 10 vegetables not favorited**
2. **Toggle the list** to "Favorites Only" and show the **text indicating an empty list**
3. **Toggle back** to the "All Vegetables" mode and **scroll back to the top of the list showing all 10 again**
4. **Click a vegetable** to go to its **details screen**
5. **Close the details screen without favoriting** the vegetable
6. **Favorite 3 different vegetables** of your choice
7. Scroll the "All Vegetables" list and show **all 3 vegetables** have their **border colors set to favorite**
8. Show the **details of each favorite** vegetable to **show the favorited border color in both screens**
9. **Toggle the list to "Favorite Only"**: it should show **only the 3 vegetables you chose**
10. One by one, **remove from favorites** the 3 vegetables **until the "Favorites Only" list is empty**

## Hints, Suggestions and Clarifications

- There's **no requirement to use React Navigation**, you can use a `<Modal/>` for the "vegetable details screen"
- There's **no requirement for data storage permanence**
- The **data is not provided in an iterable format** that the FlatList accepts: you will need to **convert the data**
- You **don't need to download the images** to display them: **check the `<Image/>` component API**

## Reference Images

From left to right:

1. App main screen (Vegetables) on "All Vegetables" mode without any favorited vegetable
2. App main screen (Vegetables) on "Favorites" mode without any favorited vegetable
3. App details screen (Vegetable Details) for the onion, not favorited
4. App main screen (Vegetables) on "All Vegetables" mode with only the onion favorited
5. App main screen (Vegetables) on "Favorites" mode only the onion favorited
6. App details screen (Vegetable Details) for the onion, favorited

