Practice Problem Workshop 5:
Part I - Individual Practice Questions

INFO 2310, Spring 2026

Student ID: Solution **NetID:**

Overview

Retrieval practice is the act of actively recalling information from memory, like quizzing oneself.

This workshop is designed to help you prepare and study for upcoming exams by engaging in retrieval practice.

Part I: Individual Practice Questions

Credit: 10 points. (completion)

1. Open this booklet and try your best to answer the practice problems **individually**.

   If you need to refer to your notes, you can. But you should try to answer the questions on your own first, without looking at your notes. (This will help you prepare for the upcoming exam.)

2. Once a majority of the class has answered the practice questions on their own, **form groups of 3-4 people and go over the questions together**.

   Discuss the questions and share your answers with the group.

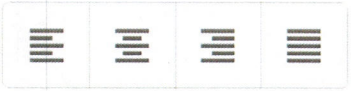
   You should update your answers in this booklet if necessary.

   Discussing the answers will help you practice retrieving the information from memory and will also help you learn from your peers.

Submit this booklet for completion credit.

Practice Problem 1

Recall the `SegmentedButton` component from Exam I:



```
import { useState } from "react"
export function SegmentedButton({iconUri, alt, variant}) {
  const [isPressed, setIsPressed] = useState(false)

  return (
    <button aria-label={alt}
      className={`segmented-btn--${variant} ${isPressed ? "pressed" : ""}`}
      onClick={() => setIsPressed(!isPressed)}>
      <img src={iconUri} alt="" />
    </button>
  )
}
```

Use the segmented button component to change the text alignment of the paragraph below. For example, when the user clicks the "align right" button, the text in the paragraph should become right-aligned.

```
export function default App() {
  return (
    <SegmentedButtonGroup>
      <SegmentedButton
        iconUri="align-left.svg" alt="align left" variant="left" />
      <SegmentedButton
        iconUri="align-center.svg" alt="align center" variant="center" />
      <SegmentedButton
        iconUri="align-right.svg" alt="align right" variant="center" />
      <SegmentedButton
        iconUri="align-justify.svg" alt="align justify" variant="right" />
    </SegmentedButtonGroup>
    <p>McGraw Tower was completed in 1891 and houses the Cornell Chimes.
</p>
  )
}
```

Turn the page and complete Problem 2 *first*.

Then update the code for the `App` and `SegmentedButton` components on this page to implement the text alignment feature. Write the code for `SegmentedButtonGroup` on the back of this page if necessary.

```
export function default SegmentedButtonGroup({children}) {

  return (
    <div className="segmented-btn-group">
      {children}
    </div>
  )
}
```

Practice Problem 2

Draw the component tree **below** for the App component and its children to plan the props and state needed to implement the text alignment feature. Use **exactly one state** for the **entire** implementation. (Include only **two** `SegmentedButton` components in your diagram for simplicity.)