

(60%) Web 程式設計一 期末考 1 -- 斷網考試

2024-12-25, at E201, 18:20~18:50

Note:

1. 請不要發揮同學愛・作弊雙方除了本次考試 0 分外，平常分數另扣 20 分，情節嚴重者會送校。
2. iClass 上請繳交 ans_final1_xx.pdf，還有 md_final1_xx.zip, src.zip 三個壓縮檔，壓縮前請將 node_modules 全部砍掉
3. 請直接將答案寫在 md_final1_xx/ans_final1_xx.md 上，老師出題及圖片放在 ans_final1_htc.pdf 上，請依照老師所給的圖片來實作並標註
4. 跟小考相關的檔案及目錄名稱有 xx 時，必須要改成學號後 2 碼，沒有修改時，會視違犯情況扣分。
5. 每一張圖片要有機房左側背景，圖片上要有你的學號(或後兩碼)，圖片標註要跟老師所標註的類似。違者會依情節扣分。
6. 請自評分數，將每一題的 ? 填入分數，沒有填者，不會批改，以 0 分計算。

Your (Name, ID): (912410023, 余忠憲)

- P1 (15%): 15 分
- P2 (14%): 14 分
- P3 (14%): 14 分
- P4 (18%): 18 分

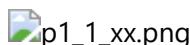
總分: ? 分

(15%) P1: 由選單 Final_xx，選擇 S1_xx，透過路由 /final/s1_xx，顯示上課 menu demo 所用到的 9 張圖片，如下圖

請自行從 pages/mid_xx 目錄下之檔案擷取本題所需要的 code，放入 final/s1_xx 目錄下，主要有兩個檔案 S1Page_xx.jsx 及 MenuItem1_xx.jsx。

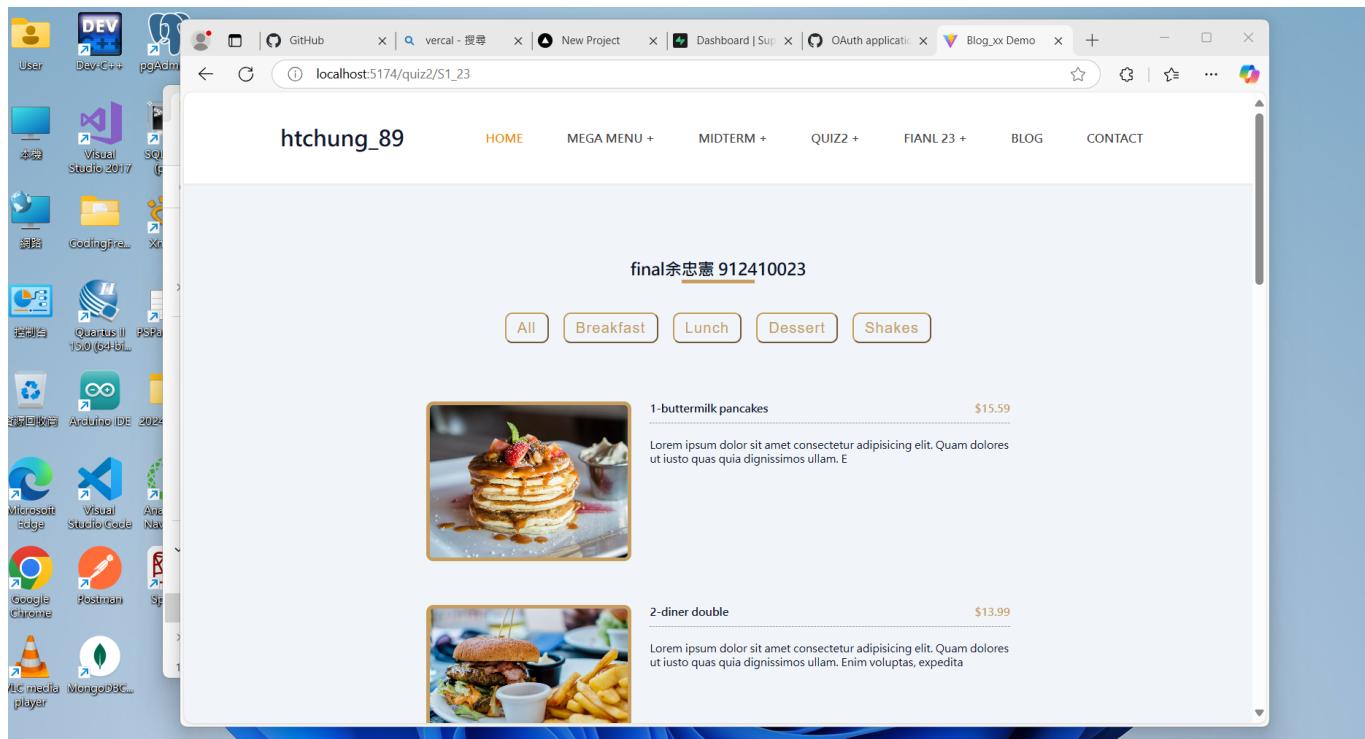
9 筆資料放在 menu_data.jsx，所用到的圖片放在 public/mid_xx 下，可能需要編輯以便能取得圖片。

=> Chrome 顯示，請點選 Final_xx 下之 S1_xx



Your Answer

=> Chrome 顯示，點選 S1Page_xx，可以看到



=> 顯示 App_xx.jsx 中的 /final/s1_xx 路由設定 code 重點顯示

```

const routes = [
  {
    path: '/quiz2',
    element: <HomeLayout_xx />,
    children: [
      {
        path: 'S1_23',
        element: <S1Page_23 />,
      },
      {
        path: 'S2_23',
        element: <S2Page_xx />,
      },
      {
        path: 'S3_23',
        element: <S3Page_xx />,
      },
      {
        path: 'S4_23',
        element: <S4Page_xx />,
      },
    ],
  },
];

```

=> 顯示 S1Page_xx.jsx code 重點顯示

```

import { useState, useEffect } from 'react'
import Wrapper from '../../../../../assets/wrappers/Menu_xx'
import MenuItem_23 from './MenuItem_xx'
import menu_data from './menu_data'

const S1Page_23 = () => {
  const [menu, setMenu] = useState([])
  const fetchData = async () => {
    try {
      setMenu(menu_data)
    } catch (error) {
      console.log(error)
    }
  }

  useEffect(() => {
    fetchData()
  }, [])

  return (
    <>
      ('')
      <Wrapper>
        <section className='menu-demo'>
          <div className='section-center'>
            <section className='menu'>
              <div className='title'>
                <h2>final余忠璽 912410023</h2>
              </div>
              <div className='underline'></div>
            </section>
          </div>
        </Wrapper>
      </>
    </>
  )
}

export default S1Page_23

```

下午7:14:30 [vite] hmr update /src/pages/final/s1_xx/S1Page_xx.jsx (x2)

```

const S1 = () => {
  const [menu, setMenu] = useState([])
  const fetchData = async () => {
    try {
      setMenu(menu_data)
    } catch (error) {
      console.log(error)
    }
  }

  useEffect(() => {
    fetchData()
  }, [])

  return (
    <>
      ('')
      <Wrapper>
        <section className='menu-demo'>
          <div className='section-center'>
            <section className='menu'>
              <div className='title'>
                <h2>final余忠璽 912410023</h2>
              </div>
              <div className='underline'></div>
            </section>
          </div>
        </Wrapper>
      </>
    </>
  )
}

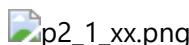
export default S1

```

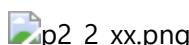
下午7:14:30 [vite] hmr update /src/pages/final/s1_xx/S1Page_xx.jsx (x2)

(14%) P2: 將 P1 複製一份到 P2，由選單 Final_xx，選擇 S2_xx，透過路由 /final/s2_xx，可以顯示 S2Page2_xx.jsx 頁面，並且可以完成 filter 按鈕功能 (本題不需要存取 local storage)

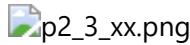
=> 將 s1_xx 目錄內之檔案，複製一份到 s2_xx，並改名如下圖 (基本上將數字 1 改成 2)，



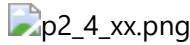
=> Chrome 顯示，請點選 Final_xx 下之 S2_xx，再點選 Breakfast



=> 點選 Lunch 之 Chrome 顯示

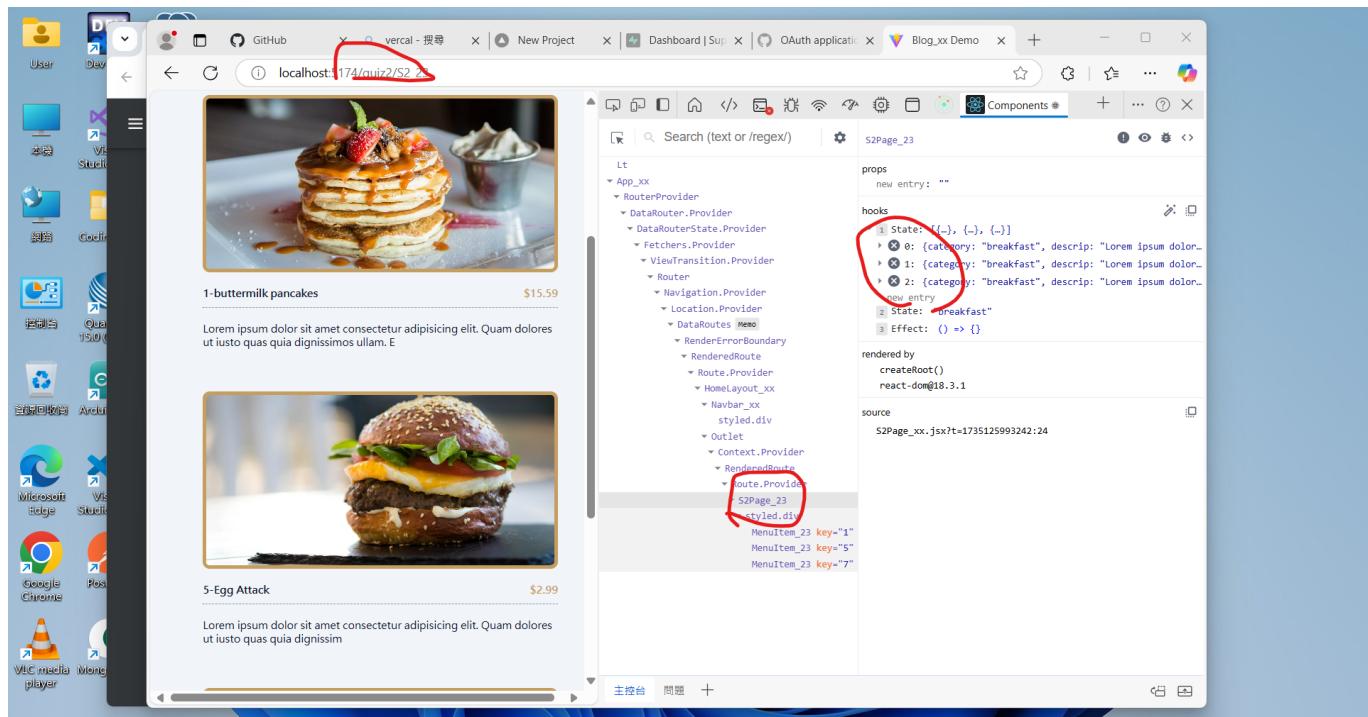


=> 點選 All 之 Chrome 顯示

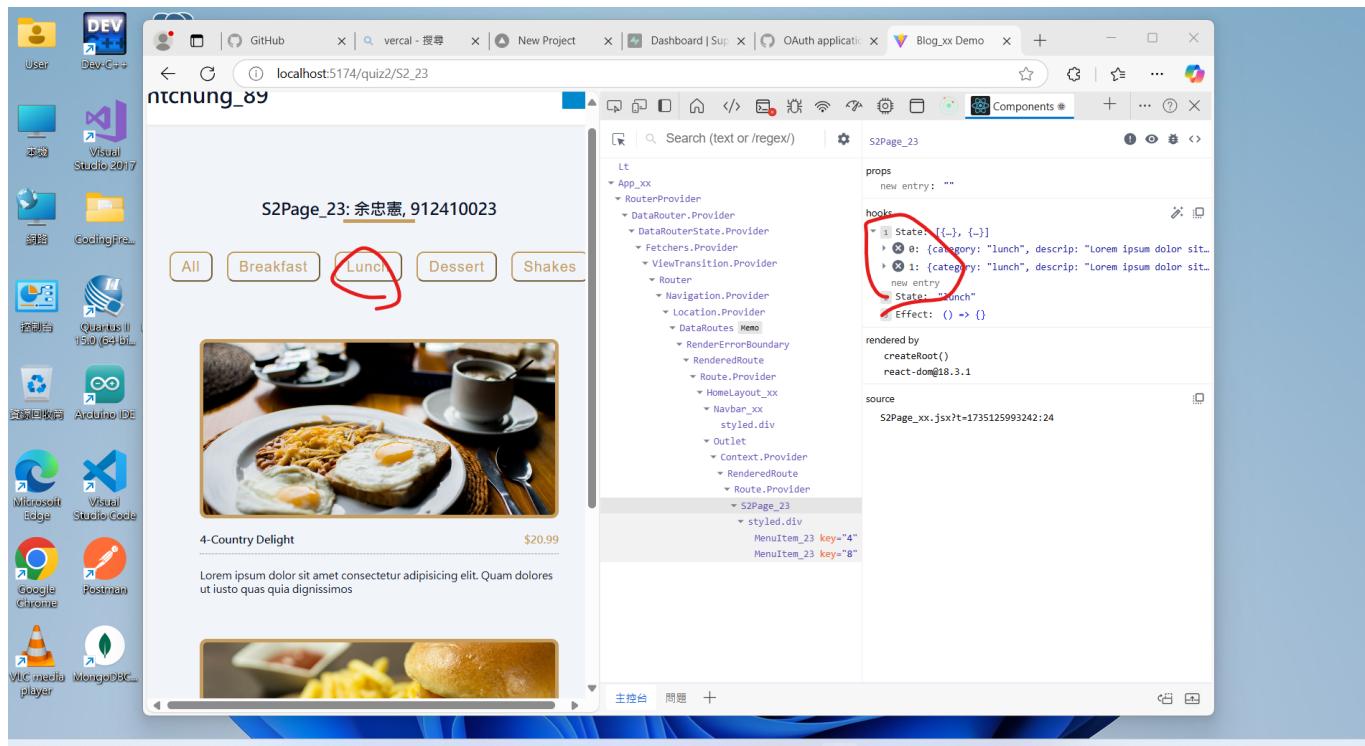


Your Answer

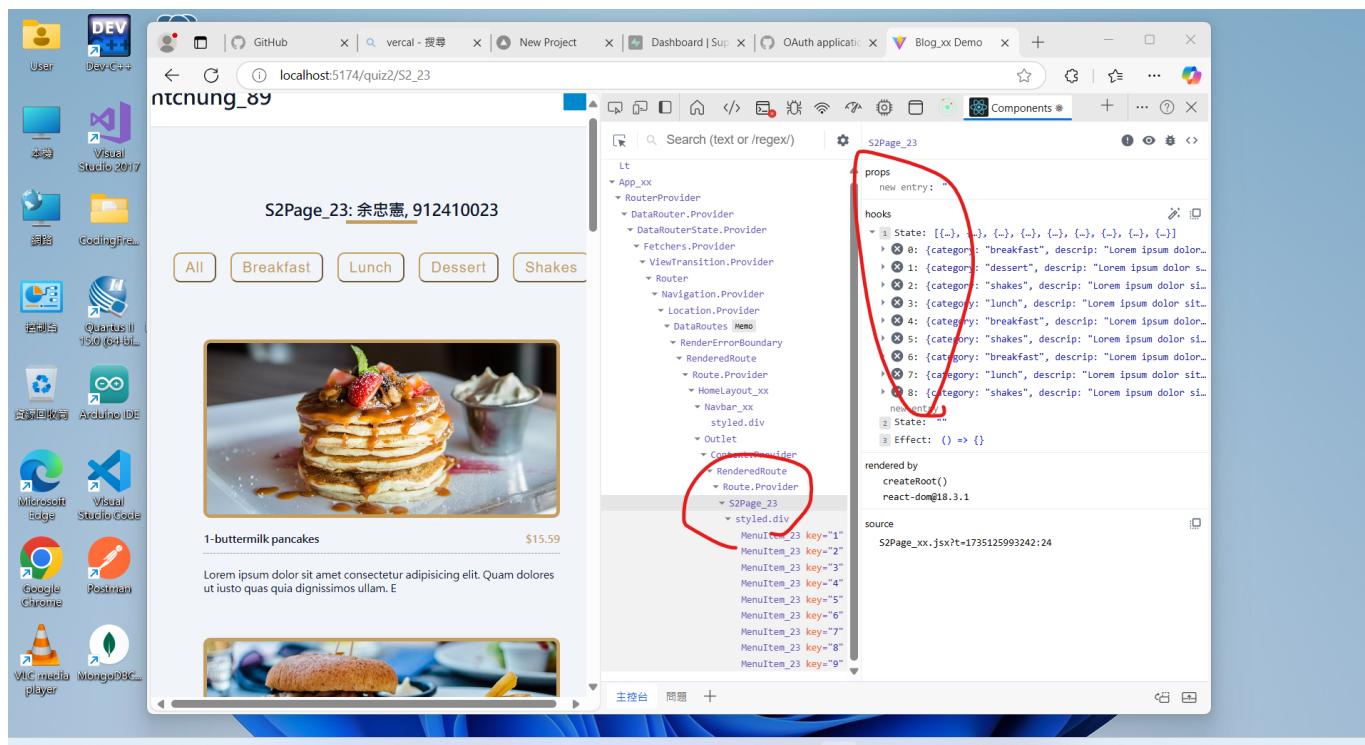
=> 點選 Breakfast 之 Chrome 顯示



=> 點選 Lunch 之 Chrome 顯示



=> 點選 All 之 Chrome 顯示



=> 顯示 S2Page_xx.jsx code 重點顯示

```

15 import { useState, useEffect } from 'react'
16 import Wrapper from '../../../../../assets/wrappers/Menu_xx'
17 import MenuItem from '../../../../../assets/wrappers/MenuItem_xx'
18 import menu_data from './menu_data'
19
20 const S2Page_23 = () => {
21   const [menu, setMenu] = useState([{}])
22   const [category, setCategory] = useState('')
23
24   const fetchMenuByCategory = async () => {
25     try {
26       if (category === '') {
27         setMenu(menu_data)
28       } else {
29         let f_menu_data = menu_data.filter((itm) => itm.category === category)
30         console.log(f_menu_data)
31         setMenu(f_menu_data)
32       }
33     } catch (error) {
34       console.log(error)
35     }
36   }
37
38   useEffect(() => {
39     fetchMenuByCategory()
40   }, [category])
41
42   const changeMenuFilter = (category) => {
43     setCategory(category)
44   }
45
46   return (
47     ...
48   )
}

```

```

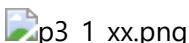
21 const S2Page_23 = () => {
22   ...
23   <button
24     type='button'
25     className='filter-btn'
26     data-id='lunch'
27     onClick={() => changeMenuFilter('lunch')}
28   >
29     lunch
30   </button>
31   <button
32     type='button'
33     className='filter-btn'
34     data-id='dessert'
35     onClick={() => changeMenuFilter('dessert')}
36   >
37     dessert
38   </button>
39   <button
40     type='button'
41     className='filter-btn'
42     data-id='shakes'
43     onClick={() => changeMenuFilter('shakes')}
44   >
45     shakes
46   </button>
47 </div>
48 <div className='section-center'>
49   {menu?.map((item) => {
50     const { id, img, title, price, category, descrip } = item
51     return (
52       <MenuItem_23
53         key={id}
54         id={id}
55       >
56       ...
57     )
58   )}
59 </div>

```

(14%) P3: 延續 P2，將 S2Page_xx.js 之顯示拆成 S3Page_xx.jsx, FilterButtons3_xx.jsx, MenuList3_xx.jsx, MenuItem3_xx.jsx，由選單 Final_xx，選擇 S3_xx，透過路由 /final/s3_xx，可以顯示 S3Page_xx.jsx

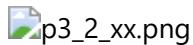
本題不需要存取 local storage

=> 請複製 P2 檔案到 P3 目錄，並且改名，目錄檔案結構如下圖



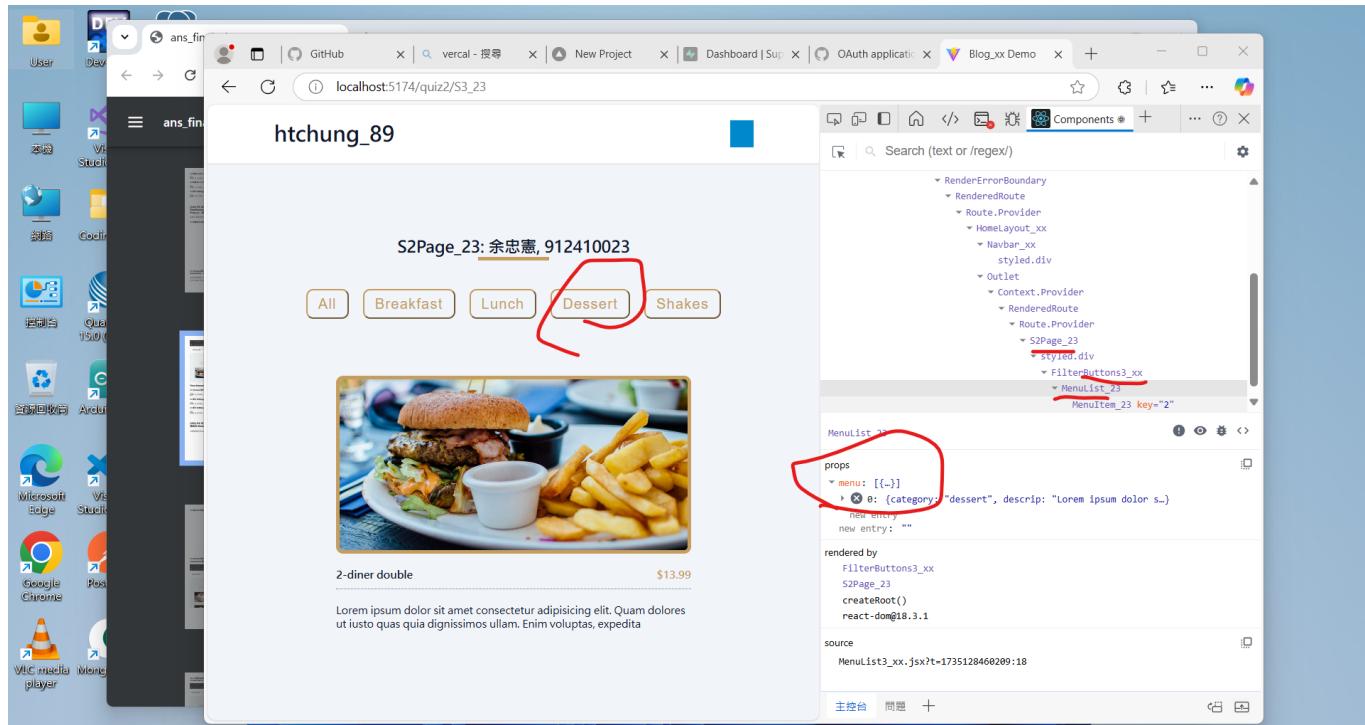
=> Chrome 顯示，請點選 Final_xx 下之 S3_xx，再點選 Dessert 只有一筆，截圖要能顯示細緻化的 components，如下說明

全部按鈕請放入 FilterButtons3_xx.jsx 中 全部 menu 先放入 MenuItem3_xx.jsx · 再透過 MenuItem3_xx.jsx 顯示單一 menu。



Your Answer

=> Chrome 顯示 Dessert 只有一筆，截圖要能顯示細緻化的 components



=> 顯示 S3Page_xx.jsx, FilterButtons3_xx.jsx code 重點顯示

```

S2Page_xx.jsx
JS menu_data.js
JS FilterButtons3_xx.jsx
JS MenuItem3_xx.jsx
JS MenuItemList3_xx.jsx
JS App_xx.jsx

final1_xx > src > pages > final > s3_xx > FilterButtons3_xx.jsx > ...
39 const S2Page_23 = () => {
40   const fetchMenuByCategory = async () => {
41     try {
42       const response = await fetch('https://api.example.com/menu');
43       const menuData = await response.json();
44       return menuData;
45     } catch (error) {
46       console.error(error);
47     }
48   }
49
50   useEffect(() => {
51     fetchMenuByCategory();
52   }, []);
53
54   const changeMenuFilter = (category) => {
55     setCategory(category);
56   }
57
58   const wrapper = () => {
59     const [category, setCategory] = useState('');
60     const [menu, setMenu] = useState([]);
61
62     const fetchMenuByCategory = async () => {
63       const response = await fetch(`https://api.example.com/menu?category=${category}`);
64       const menuData = await response.json();
65       setMenu(menuData);
66     }
67
68     return (
69       <Wrapper>
70         <section className='menu-demo'>
71           <div className='action-center'>
72             <section className='menu'>
73               <FilterButtons3_xx />
74             </section>
75           </div>
76         </section>
77       </Wrapper>
78     );
79   }
80
81   export default S2Page_23;

```

PROBLEMS 61 OUTPUT DEBUG CONSOLE TERMINAL PORTS POSTMAN CONSOLE

下午8:07:50 [vite] hmr update /src/pages/final/s3_xx/FilterButtons3_xx.jsx

```

S2Page_xx.jsx
JS S3Page_xx.jsx
JS menu_data.js
JS FilterButtons3_xx.jsx
JS MenuItem3_xx.jsx
JS MenuItemList3_xx.jsx
JS App_xx.jsx

final1_xx > src > pages > final > s3_xx > FilterButtons3_xx.jsx > ...
1 import { useState, useEffect } from 'react';
2
3 import menu_data from './menu_data';
4 import MenuItemList_23 from './MenuItemList3_xx';
5
6 const FilterButtons3_xx = () => {
7   const [menu, setMenu] = useState([]);
8   const [category, setCategory] = useState('');
9
10   const fetchMenuByCategory = async () => {
11     try {
12       if (category === '') {
13         setMenu(menu_data);
14       } else {
15         let filteredMenu = menu_data.filter((item) => item.category === category);
16         console.log(filteredMenu);
17         setMenu(filteredMenu);
18       }
19     } catch (error) {
20       console.log(error);
21     }
22   }
23
24   useEffect(() => {
25     fetchMenuByCategory();
26   }, [category]);
27   const changeMenuFilter = (category) => {
28     setCategory(category);
29   }
30
31   return (
32     <>
33       <div class='title'>
34         <h2>S2Page_23: 余忠惠, 912410023</h2>
35       </div>
36     </>
37   );
38 }

PROBLEMS 61 OUTPUT DEBUG CONSOLE TERMINAL PORTS POSTMAN CONSOLE
下午8:07:50 [vite] hmr update /src/pages/final/s3_xx/FilterButtons3_xx.jsx

```

Ln 6 Col 7 Spaces:2 UTF-8 CRLF JavaScript JSX Go Live Spell Prettier

下午08:10

The screenshot shows the VS Code interface with the following details:

- File Explorer:** Shows a project structure for "1131_2N-FINAL1". The "final_xx" folder contains "src" and "pages" subfolders. "src" contains "components" (with "Navbar_xx.jsx"), "db", "mid_xx", and "clientSupabase.jsx". "pages" contains "final" (with "s1_xx", "s2_xx", and "s3_xx" subfolders). "s3_xx" contains "FilterButtons3_xx.jsx", "menu_data.js", "MenuItem3_xx.jsx", "MenuList3_xx.jsx", and "S3Page_xx.jsx".
- Code Editor:** Displays the content of "FilterButtons3_xx.jsx". A red oval highlights the following code block:

```
const FilterButtons3_xx = () => {
  const [filter, setFilter] = useState('lunch')
  const [menu, setMenu] = useState(menuData)

  const changeMenuFilter = (newFilter) => {
    setFilter(newFilter)
    setMenu(menuData.filter(item => item.type === newFilter))
  }

  return (
    <div>
      <h1>Welcome to the Filtered Menu!</h1>
      <h2>Available Options:</h2>
      <ul>
        <li><button type='button' onClick={() => changeMenuFilter('lunch')}>lunch</button></li>
        <li><button type='button' onClick={() => changeMenuFilter('dessert')}>dessert</button></li>
        <li><button type='button' onClick={() => changeMenuFilter('shakes')}>shakes</button></li>
      </ul>
      <div className='section-center'>
        <h3>Your Selected Filter:</h3>
        <p>{filter}</p>
        <ul>
          {menu.map(item => (
            <li key={item.id}>{item.name} - {item.calories} Calories</li>
          ))}
        </ul>
      </div>
    </div>
  )
}
```
- Bottom Status Bar:** Shows "下午8:07:50 vite hmr update /src/pages/final/s3_xx/filterButtons3_xx.jsx".

=> 顯示 S3MenuList3_xx.jsx, MenuItem3_xx.jsx code 重點顯示

```

final1_xx > src > pages > final > s1_xx > MenuItem3_xx.jsx > MenuItemList3_xx.jsx > MenuItemList3_xx.jsx
9
10 export default MenuItemList3_xx;/*
11
12 import MenuItem_23 from './MenuItem3_xx'
13
14 const MenuItemList3 = ({ menu }) => {
15   return (
16     <div className='section-center'>
17       {menu.map((item) => {
18         const { id, img, title, price, category, descrip } = item
19         return (
20           <MenuItem_23
21             key={id}
22             id={id}
23             img={img}
24             title={title}
25             category={category}
26             price={price}
27             descrip={descrip}
28           />
29         )
30       ))}
31     </div>
32   )
33 }
34 export default MenuItemList3
35

```

PROBLEMS 61 OUTPUT DEBUG CONSOLE TERMINAL PORTS POSTMAN CONSOLE

下午8:07:50 [vite] hmr update /src/pages/final/s3_xx/FilterButtons3_xx.jsx

```

final1_xx > src > pages > final > s1_xx > MenuItem3_xx.jsx > MenuItemList3_xx.jsx > MenuItemList3_xx.jsx > MenuItemList3_xx.jsx
10
11 const MenuItem_23 = ({ id, title, img, price, descrip }) => {
12   return (
13     <article key={id} className='menu-item'>
14       <img src={img} alt='buttermilk pancakes' className='photo' />
15       <div className='item-info'>
16         <header>
17           <h2>{id}-{title}</h2>
18           <h4 className='price'>${price}</h4>
19         </header>
20         <p className='item-text'>{descrip}</p>
21       </div>
22     </article>
23   )
24 }
25
26
27
28 export default MenuItem_23
29

```

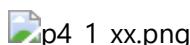
PROBLEMS 61 OUTPUT DEBUG CONSOLE TERMINAL PORTS POSTMAN CONSOLE

下午8:07:50 [vite] hmr update /src/pages/final/s3_xx/FilterButtons3_xx.jsx

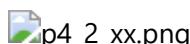
(18%) P4: 將 P3 改成以 context api 來實作，由選單 Final_xx，選擇 S4_xx，透過路由 /final/s4_xx，可以顯示 S4Page_xx.jsx

本題需要存取 local storage。

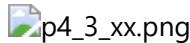
=> 請從 P3 將檔案複製到 P4 目錄，並改名，目錄檔案結構如下圖，



=> Chrome 顯示，請點選 Final_xx 下之 S4_xx，點選 Shakes，透過 Chrome DevTools 之 components 顯示 3 筆 shakes 資料，



=>=> 點選 Shakes，透過 Chrome DevTools 之 Application 顯示 3 筆 shakes 資料於 local storage 之 menu-list 中



Your Answer

=> 點選 Shakes，透過 Chrome DevTools 之 components 顯示 3 筆 shakes 資料。

```

    styled.div
      Outlet
        Context.Provider
          RenderedRoute
            Route.Provider
              S4Page_XX
                MenuContextProvider_XX
                  Context.Consumer
                    styled.div
                      FilterButtons4_XX
                        MenuList_23
                          MenuItem_23 key="3"
                          MenuItem_23 key="6"
                          MenuItem_23 key="9"
    
```

Props:

```

    menu_data: [{...}, {...}, {...}]
    > 0: {category: "shakes", descrip: "Lorem ipsum dolor si..."}
    > 1: {category: "shakes", descrip: "Lorem ipsum dolor si..."}
    > 2: {category: "shakes", descrip: "Lorem ipsum dolor si..."}
    no_entry: ""
  
```

Rendered by:

```

    FilterButtons4_XX
    S4Page_XX
    createRoot()
    react-dom@18.3.1
  
```

source:

=>=> 點選 Shakes，透過 Chrome DevTools 之 Application 顯示 3 筆 shakes 資料於 local storage 之 menu-list 中

```

    機碼
      23_items
        [{"id": 3, "title": "godzilla milkshake", "category": "shakes"}, {"id": 6, "title": "Oreo Dream", "category": "shakes"}, {"id": 9, "title": "Quarantine Buddy", "category": "shakes"}]
  
```

=> 顯示 contextMenu_xx.jsx 之 code 重點

```

contextMenu_xx.jsx
final1_xx > src > pages > final > s4_xx > contextMenu_xx.jsx > useContextProvider_xx > fetchMenuByCategory
import { useContext, useState, createContext, useEffect } from 'react'
import menu_data from './menu_data'

const MyAppContext = createContext()

export const useContextProvider_xx = ({ children }) => {
  const [menu, setMenu] = useState([])
  const [category, setCategory] = useState('')
  const fetchMenuByCategory = async () => {
    try {
      if (category === '') {
        setMenu(menu_data)
        setLocal(menu_data)
      } else {
        let f_menu_data = menu_data.filter(item => item.category === category)
        console.log(f_menu_data)
        setMenu(f_menu_data)
        setLocal(f_menu_data)
      }
    } catch (error) {
      console.log(error)
    }
  }

  useEffect(() => {
    fetchMenuByCategory()
  }, [category])
  const changeMenuFilter = (category) => {
    setCategory(category)
  }
}

```

```

contextMenu_xx.jsx
final1_xx > src > pages > final > s4_xx > contextMenu_xx.jsx > useContextProvider_xx > f_menu_data
useEffect(() => {
  const changeMenuFilter = (category) => {
    setCategory(category)
  }

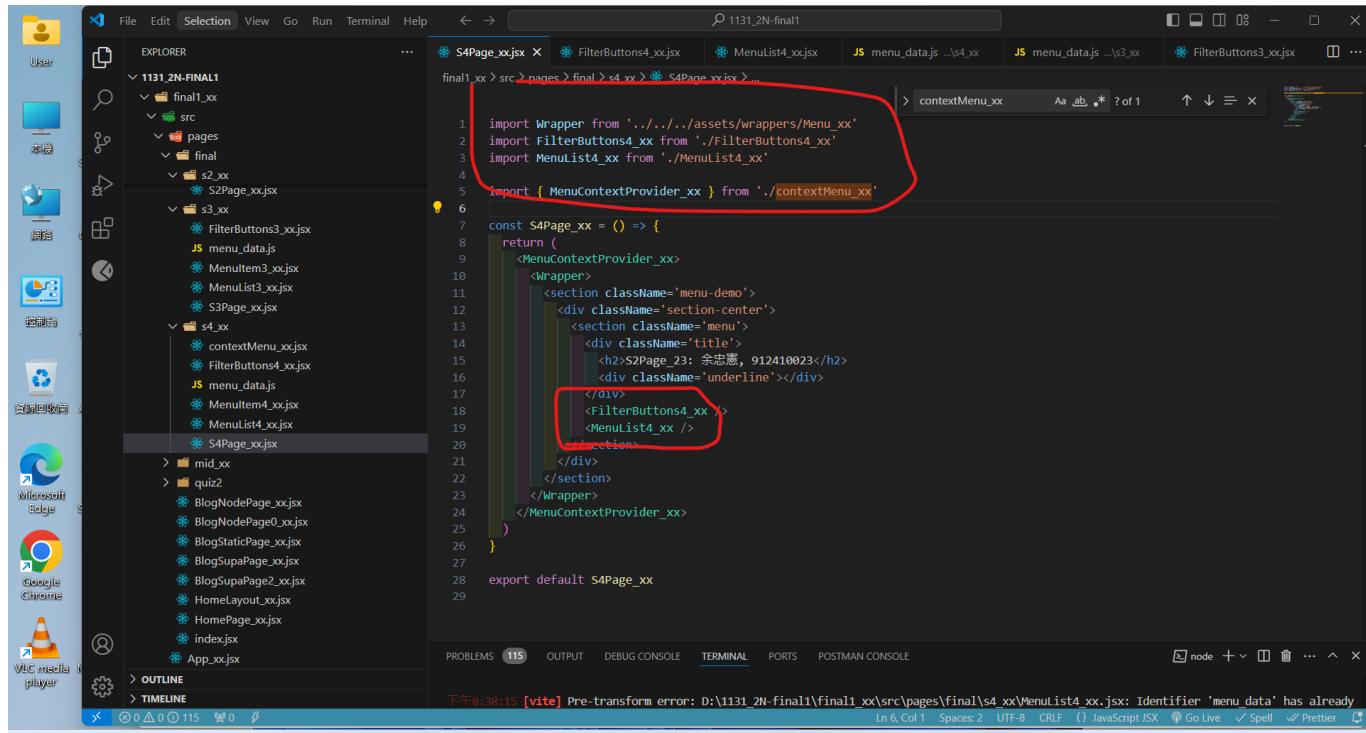
  const setLocal = (lst) => {
    localStorage.setItem('23_items', JSON.stringify(lst))
  }
  const getLocal = () => {
    if (localStorage.getItem('23_items') === null) {
      localStorage.setItem('23_items', JSON.stringify([]))
    } else {
      let local = JSON.parse(localStorage.getItem('23_items'))
      setItems(local)
    }
  }

  return (
    <MyAppContext.Provider value={{ menu, changeMenuFilter }}>
      {children}
    </MyAppContext.Provider>
  )
}

export const useContextProvider_xx = () => {
  return useContext(MyAppContext)
}

```

=> 顯示 S4Page_xx.jsx 之 code 重點



```
import Wrapper from '../../../../../assets/wrappers/Menu_xx'
import FilterButtons4_xx from './FilterButtons4_xx'
import MenuList4_xx from './MenuList4_xx'

import { MenuContextProvider_xx } from './contextMenu_xx'

const S4Page_xx = () => {
  return (
    <MenuContextProvider_xx>
      <Wrapper>
        <section className='menu-demo'>
          <div className='menu'>
            <div className='title'>
              <h2>S2Page_23: 余忠憲, 912410023</h2>
              <div className='underline'></div>
            </div>
            <FilterButtons4_xx />
            <MenuList4_xx />
          </div>
        </section>
      </Wrapper>
    </MenuContextProvider_xx>
  )
}

export default S4Page_xx
```

=> 顯示 FilterButtons4_xx.jsx 之 code 重點

```

const FilterButtons4_xx = () => {
  <button type='button' className='filter-btn' data-id='lunch' onClick={() => changeMenuFilter('lunch')}> lunch </button>
  <button type='button' className='filter-btn' data-id='dessert' onClick={() => changeMenuFilter('dessert')}> dessert </button>
  <button type='button' className='filter-btn' data-id='shakes' onClick={() => changeMenuFilter('shakes')}> shakes </button>
}
</div>
<div className='section-center'>
  | <MenuList_23 menu_data={menu} />
</div>
)
}

export default FilterButtons4_xx

```

```

const FilterButtons4_xx = () => {
  useEffect(() => {
    fetchMenuByCategory()
  }, [category])
  const changeMenuFilter = (category) => {
    setCategory(category)
  }
  const { changeMenuFilter, menu } = useMenuContext_xx()

  return (
    <>
      <div className='title'>
        <div className='underline'></div>
      </div>
      <div className='btn-container'>
        <button type='button' className='filter-btn' data-id='all' onClick={() => changeMenuFilter('')}> all </button>
        <button type='button' className='filter-btn' data-id='breakfast' onClick={() => changeMenuFilter('breakfast')}> breakfast </button>
        ...
      </div>
    </>
  )
}

export default FilterButtons4_xx

```

=> 顯示 MenuList4_xx.jsx 之 code 重點

```

1 import MenuItem_23 from './MenuItem_23'
2 import { useMenuItemContext } from './contextMenuItem_xx'
3
4 const MenuList_23 = ({ menu_data }) => {
5   // const { menu_data } = useMenuItemContext()
6   return (
7     <div className='section-center'>
8       {menu_data.map((item) => {
9         const { id, img, title, price, category, descrip } = item
10        return (
11          <MenuItem_23
12            key={id}
13            id={id}
14            img={img}
15            title={title}
16            category={category}
17            price={price}
18            descrip={descrip}
19          />
20        );
21      })}
22    </div>
23  }
24
25 export default MenuList_23

```

下午8:38:15 [vite] Pre-transform error: D:\1131_2N-final1\final1_xx\src\pages\final\s4_xx\MenuList4_xx.jsx: Identifier 'menu data' has already

```

1 const MenuItem_23 = ({ id, title, img, price, descrip }) => {
2   return (
3     <article key={id}>
4       <img alt='buttermilk pancakes' src={img} />
5       <div className='item-info'>
6         <header>
7           <h4>{id}-{title}</h4>
8           <h4>${price}</h4>
9           <p>{descrip}</p>
10        </div>
11      </article>
12    );
13
14  export default MenuItem_23

```

下午8:38:15 [vite] Pre-transform error: D:\1131_2N-final1\final1_xx\src\pages\final\s4_xx\MenuItem4_xx.jsx: Identifier 'menu data' has already