

Name: Abdur R. Qureshi

Roll No: 242466

---

Practical No: 10

Date Of Performance: 09/10/2025

Aim: Implementation of React useRef, router, keys etc.

Q) Create functional components to demonstrate router

### CODE (Rulers):

```
import { useState, useEffect } from "react";

const HomePage = () => (
  <div className="p-5 text-center">
    <h1 className="text-3xl font-bold mb-4"><img alt="crown icon" data-bbox="268 561 281 574"/> Great Rulers of History</h1>
    <p className="text-lg mb-2">
      Explore the lives and legacies of history's most influential leaders!
    </p>
    <p className="text-lg mb-6">
      From ancient conquerors to military geniuses, discover their stories.
    </p>
    <div className="mt-5">
      <div
        className="grid grid-cols-1 md:grid-cols-3 gap-4 mt-5">
        <div
          className="p-4 bg-blue-50 rounded-lg">
          <h4
            className="font-semibold text-lg">Military Genius</h4>
```

```
          <p>Strategic brilliance and battlefield tactics</p>
        </div>
        <div
          className="p-4 bg-green-50 rounded-lg">
          <h4
            className="font-semibold text-lg">Empire Building</h4>
          <p>Conquests and territorial expansion</p>
        </div>
        <div
          className="p-4 bg-purple-50 rounded-lg">
          <h4
            className="font-semibold text-lg">Lasting Legacy</h4>
          <p>Impact on civilization and culture</p>
        </div>
      </div>
    </div>
  );

const NapoleonPage = () => (
  <div className="p-5 text-center">
```

```
    <h1 className="text-3xl font-bold mb-4"><img alt="crown icon" data-bbox="814 485 827 498"/> Napoleon Bonaparte</h1>
    <p className="text-lg mb-6">
      The French military genius who dominated Europe
    </p>
    <div className="max-w-3xl mx-auto p-5 bg-orange-50 rounded-lg text-left">
      <h3
        className="text-xl font-semibold mb-3">
        Historical Significance
      </h3>
      <p className="mb-4">
        Napoleon Bonaparte (1769-1821) was a French military commander and political leader who rose to prominence during the French Revolution and led several successful campaigns during the Revolutionary Wars.
      </p>
```

```

        <h3
className="text-xl font-
semibold mb-3">Key
Achievements</h3>
        <ul
className="list-disc list-
inside space-y-2 mb-4">
            <li>👑
Crowned Emperor of the French
in 1804</li>
            <li>
                🏆 Won
numerous battles including
Austerlitz and Marengo
            </li>
            <li>📜
Established the Napoleonic
Code</li>
            <li>🌍
Controlled most of
continental Europe</li>
        </ul>

        <div
className="mt-4 p-3 bg-blue-
100 rounded-lg">
            <strong>Famous
Quote:</strong> "Impossible
is a word to be found
            only in the
dictionary of fools."
        </div>
    </div>
);

const CaesarPage = () => (
    <div className="p-5 text-
center">
        <h1 className="text-
3xl font-bold mb-4">🏰 Julius
Caesar</h1>
        <p className="text-lg
mb-6">
            The legendary
Roman general and statesman
        </p>

        <div className="grid
grid-cols-1 md:grid-cols-3
gap-5 mt-5">
            <div
className="p-5 border-2
border-brown-600 rounded-lg
bg-gray-50">
                <h3
className="text-lg font-
semibold mb-2">👑
Military Campaigns
                </h3>
                <p
className="mb-3">

```

```

Conqueror
of Gaul and victor of the
Civil War
        </p>
        <div
className="text-xl font-bold
text-brown-600">58-50
BC</div>
        <div
className="mt-3">
            <strong>6
allied Wars:</strong> 8 years
of conquest
        </div>
        <div
className="p-5 border-2
border-red-700 rounded-lg bg-
gray-50">
            <h3
className="text-lg font-
semibold mb-2">🏰
Political Reforms
        </h3>
        <p
className="mb-3">Transformed
the Roman Republic</p>
        <div
className="text-xl font-bold
text-red-700">49-44 BC</div>
        <div
className="mt-3">
            <strong>D
ictator:</strong> Appointed
for life
        </div>
        <div
className="p-5 border-2
border-gray-700 rounded-lg
bg-gray-50">
            <h3
className="text-lg font-
semibold mb-2">🏰 Legacy</h3>
            <p
className="mb-3">Julian
Calendar and literary
works</p>
            <div
className="text-xl font-bold
text-gray-700">
                Eternal
Impact
            </div>
            <div
className="mt-3">
                <strong>A
ssassinated:</strong> Ides of
March, 44 BC
            </div>
        </div>
    </div>

```

```

        <div className="mt-5
p-4 bg-blue-50 rounded-lg">
            <strong>Famous
Quote:</strong> "Veni, Vidi,
Vici" (I came, I saw, I
conquered)
        </div>
    </div>
);

const RouterDemo = () => {
    const [currentPath,
setCurrentPath] =
useState(window.location.path
name);

    useEffect(() => {
        const handlePopState
= () => {
            setCurrentPath(wi
ndow.location.pathname);
        };

        window.addEventListen
er("popstate",
handlePopState);
        return () =>
window.removeEventListener("p
opstate", handlePopState);
    }, []);

    const navigate = (path)
=> {
        window.history.pushSt
ate({}, "", path);
        setCurrentPath(path);
    };

    const renderComponent =
() => {
        switch (currentPath)
        {
            case "/":
                return
                <HomePage />;
            case "/napoleon":
                return
                <NapoleonPage />;
            case "/caesar":
                return
                <CaesarPage />;
            case "/hannibal":
                return
                <HannibalPage />;
            default:
                return (
                    <div
className="p-10 text-center">
                        <h1
className="text-3xl font-bold
mb-4">
                            4
                            04 - Ruler Not Found
                        </h1>

```

```

        className="text-lg mb-6">
            T
            he historical ruler you're
            looking for doesn't
            e
            xist in our records.
        </p>
        <butt
            on
            o
            nClick={() => navigate("/")}>
            c
            lassName="px-5 py-3 bg-brown-
            600 text-white border-none
            rounded-lg hover:bg-brown-700
            transition-colors"
            >
            R
            eturn to Hall of Rulers
        </but
            ton>
        </div>
    );
    };

    const isActive = (path)
    => currentPath === path;

    return (
        <div className="p-5
            m-3 rounded-lg bg-gray-50">
            <nav
                className="mb-5 p-4 bg-amber-
                50 rounded-lg border border-
                amber-200">
                <h3
                    className="text-xl font-
                    semibold mb-3">
                    Gallery
                of Great Leaders
            </h3>
            <div
                className="flex gap-3 flex-
                wrap">
                <button
                    onClick={() => navigate("/")}>
                    class
                    Name={`px-4 py-3 text-white
                    border-none rounded-lg
                    cursor-pointer transition-
                    colors ${
                        isActive("/")
                            ? "bg-brown-600"
                            : "bg-amber-600 hover:bg-
                            amber-700"
                    }`}
                    >
                    <img alt="Home icon" data-bbox="565 288 585 303"/>
                    Home
                </button>
                <button
                    onClick={() =>
                        navigate("/napoleon")
                    }>
                    class
                    Name={`px-4 py-3 text-white
                    border-none rounded-lg
                    cursor-pointer transition-
                    colors ${
                        isActive("/napoleon")
                            ? "bg-brown-600"
                            : "bg-amber-600 hover:bg-
                            amber-700"
                    }`}
                    >
                    <img alt="Napoleon icon" data-bbox="565 555 585 568"/>
                    Napoleon
                </button>
                <button
                    onClick={() =>
                        navigate("/caesar")
                    }>
                    class
                    Name={`px-4 py-3 text-white
                    border-none rounded-lg
                    cursor-pointer transition-
                    colors ${
                        isActive("/caesar")
                            ? "bg-brown-600"
                            : "bg-amber-600 hover:bg-
                            amber-700"
                    }`}
                    >
                    <img alt="Caesar icon" data-bbox="838 225 858 238"/>
                    Caesar
                </button>
            </div>
            </nav>
            <div
                className="mb-4 p-3 bg-amber-
                50 rounded-lg border border-
                amber-200">
                <strong>Curre
                nt Historical
                Figure:</strong>{" "}
                <code
                    className="bg-white px-2 py-1
                    rounded">
                    {currentP
                    ath}
                </code>
            </div>
            <div
                className="border border-
                amber-200 rounded-lg min-h-80
                bg-white">
                {renderCompon
                ent()}
            </div>
        </div>
    );
    };

    export default RouterDemo;

```

## CODE (Rendering):

```

import Rulers from "../components/Rulers";

function App() {
    return (
        <Rulers />
    );
}

export default App;

```

## OUTPUT:

### Gallery of Great Leaders

[Home](#) [Napoleon](#) [Caesar](#) [Hannibal](#)  
Current Historical Figure: /caesar

### Julius Caesar

The legendary Roman general and statesman

#### Military Campaigns

Conqueror of Gaul and victor of the Civil War

58-50 BC

**Gaulic Wars:** 8 years of conquest

#### Political Reforms

Transformed the Roman Republic

49-44 BC

**Dictator:** Appointed for life

#### Legacy

Julian Calendar and literary works

Eternal Impact

**Assassinated:** Ides of March, 44 BC

**Famous Quote:** "Veni, Vidi, Vici" (I came, I saw, I conquered)

### Gallery of Great Leaders

[Home](#) [Napoleon](#) [Caesar](#) [Hannibal](#)  
Current Historical Figure: /napoleon





### Napoleon Bonaparte

The French military genius who dominated Europe

#### Historical Significance

Napoleon Bonaparte (1769-1821) was a French military commander and political leader who rose to prominence during the French Revolution and led several successful campaigns during the Revolutionary Wars.

#### Key Achievements

-  Crowned Emperor of the French in 1804
-  Won numerous battles including Austerlitz and Marengo
-  Established the Napoleonic Code
-  Controlled most of continental Europe

**Famous Quote:** "Impossible is a word to be found only in the dictionary of fools."

## Q) Create functional components to demonstrate useRef

## CODE (FocusJasGews):

```
import { useRef } from "react";

function FocusJasGews() {
  const inputRef = useRef(null);

  const handleClick = () => {
    inputRef.current.focus();
  };

  return (
    <div>
      <input ref={inputRef}
        type="text" placeholder="Jas Gews" />
      <button
        onClick={handleClick}>Click to Jas
        Gews</button>
    </div>
  );
}

export default FocusJasGews;
```

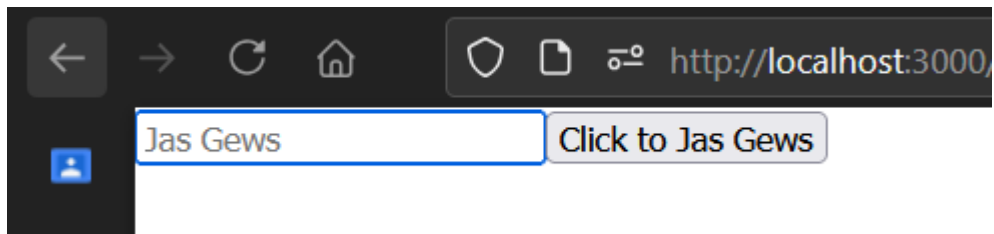
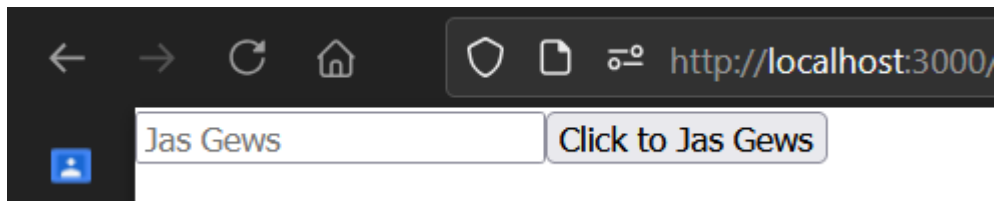
## CODE (Rendering):

```
import FocusJasGews from "../components/FocusJasGews";
```

```
function App() {
  return (
    <FocusJasGews />
  );
}
```

```
export default App;
```

OUTPUT:



Q) Create functional components to demonstrate keys

CODE (JewTattoo):

```
import React, { useState }
from "react";

const JewTatto = () => {
  const [items,
setItems] = useState([
    { id: 1, name:
"Goldberg", number: 496242
},
    { id: 2, name:
"Rosenstein", number:
177854 },
    { id: 3, name:
"Silverman", number:
823659 },
    { id: 4, name:
"Feinberg", number: 896523
},
    { id: 5, name:
"Abramowitz", number:
564175 },
  ]);

  return (
    <div style={{
padding: "20px" }}>
      <h2>Jew Tatto
Number Demonstration</h2>
      <div>
        <h3>List
with Proper Keys:</h3>
        <ul>
          {items
.map((item) => (
            <li
              key={item.id}
              style={{
                color: item.color,
                padding: "5px",
                margin: "5px 0",
              }}
            >
              {item.name} (Number:
{item.number})
            </li>
          ))}
        </ul>
      </div>
    </div>
  );
};

export default JewTatto;
```

## CODE (Rendering):

```
import JewTatto from "../components/JewTatto";

function App() {
  return (
    <JewTatto />
  );
}

export default App;
```

## OUTPUT:

# **Jew Tattoo Number Demonstration**

## **List with Proper Keys:**

- Goldberg (Number: 496242)
- Rosenstein (Number: 177854)
- Silverman (Number: 823659)
- Feinberg (Number: 896523)
- Abramowitz (Number: 564175)