Google Developer Groups

Build Your Own Virtual Assistant Workshop

React, Gemini, Google Cloud

February 1, 2025 @ 5:30 pm - 6:30 pm

Check-in

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Our Team

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React Components

1

```
ReactDOM.createRoot(document.getElementById('root')).render(<App />);
```

2

App Component

```
export default function App() {
  return <Greetings />;
}
```

Greetings Component

```
export default function Greetings() {
  return <h1>Hello, GDG</h1>;
}
```

```
export default function App() {
  return <Greetings name="GDG"/>;
}
```

```
export default function Greetings(props) {
  return <h1>Hello, {props.name}</h1>;
}
```

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React State Hook

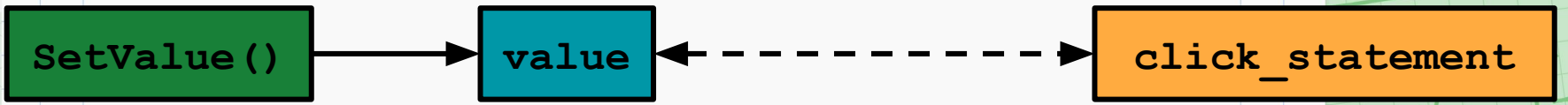
```
export default function App() {
  const [value, SetValue] = useState(0);

  document.getElementById("incr_button").onclick = () => {
    SetValue(value + 1);
  };

  document.getElementById("decr_button").onclick = () => {
    if (value) {
      SetValue(value - 1);
    }
  };

  return (
    <h1 id="click_statement">You clicked the buttons {value} times.</h1>
  );
}
```

The **<App />** Component is re-rendered every time **SetValue()** is called.



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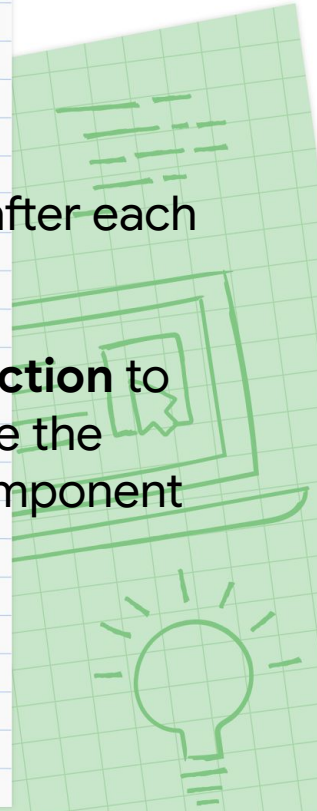
React Effect Hook

```
export default function App() {
  const [time, SetTime] = useState(0);

  useEffect(() => {
    const intervalId = setInterval(() => {
      SetTime(time + 1);
    }, 1000)

    return () => {
      clearInterval(intervalId);
    };
  });

  return <h1>It has been {time} seconds.</h1>;
}
```

Code to run after each render.

Cleanup Function to run every time the **<App />** Component is destroyed.



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Virtual Assistant Project

Pulling From GitHub

1. Pull the contents of the Web-Dev repository from GitHub into your local file system.

2. Navigate to your local repository.

These slides are available in the repository too.

```
git clone
https://github.com/GDSC-MSU/Web-Dev.git
```

Starter Repository

Install Packages

1. Install Node.js.

2. Install Google's Generative AI package in Node.js:
   `npm install @google/generative-ai`

3. Install the **`marked`** package to convert from Markdown to HTML:
   `npm install marked`

Acquiring Gemini API Key

1. Browse the following URL: https://aistudio.google.com/apikey?_gl=1*dt3wl5*_ga*OTMzNjQ2ODAxLjE3MzgzNjE1Nzl.*_ga_P1DBVKWT6V*MTczODM4MjQzOS4yLjEuMTczODM4MjQ0Ny41Mi4wLjEyMjQ3MDgzNjY.

2. Click on “Create API Key”.

3. Copy and save the API key as we will use it soon.

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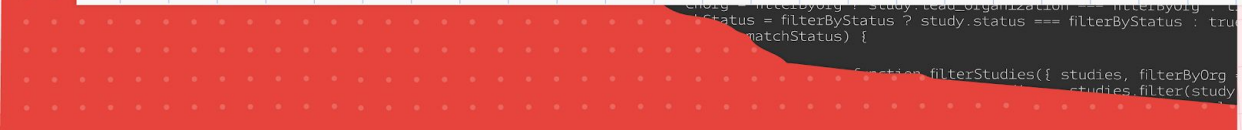
Live Demo: Virtual Assistant Project

Repository with filled-in code:
https://github.com/Shan-234/Virtual_Assistant



Deploying on Google Cloud using Cloud Run

1. Need a Google Cloud Account ($300 GCP credits as a part of free trial) - https://console.cloud.google.com
2. Navigate to Cloud Run product on the console.
3. Choose a Github repository to host.
4. Select the configurations for ingres, security etc.
5. Your website is deployed within minutes!
   Sample Website:
   https://virtual-assistant-fork-999968513151.us-central1.run.app/

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Check-in

Thank you!

Stay connected with GDG MSU for updates on social events, conferences, tech workshops, the Global Solution Challenge, and more!