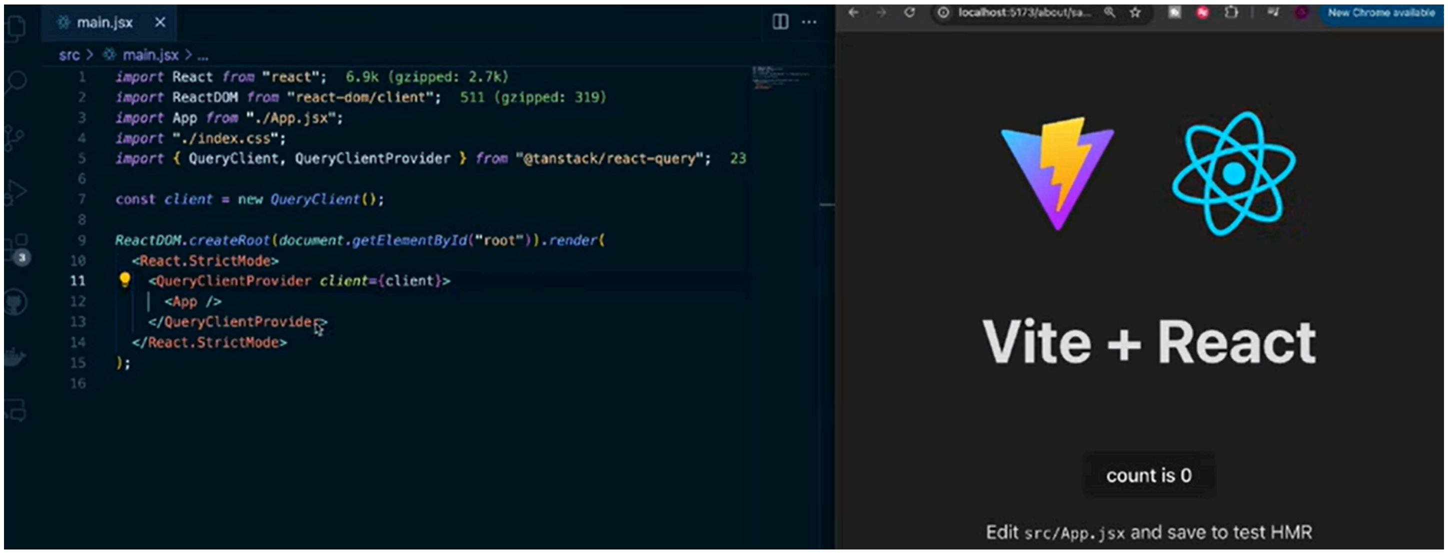
## Step 1 for TanStack

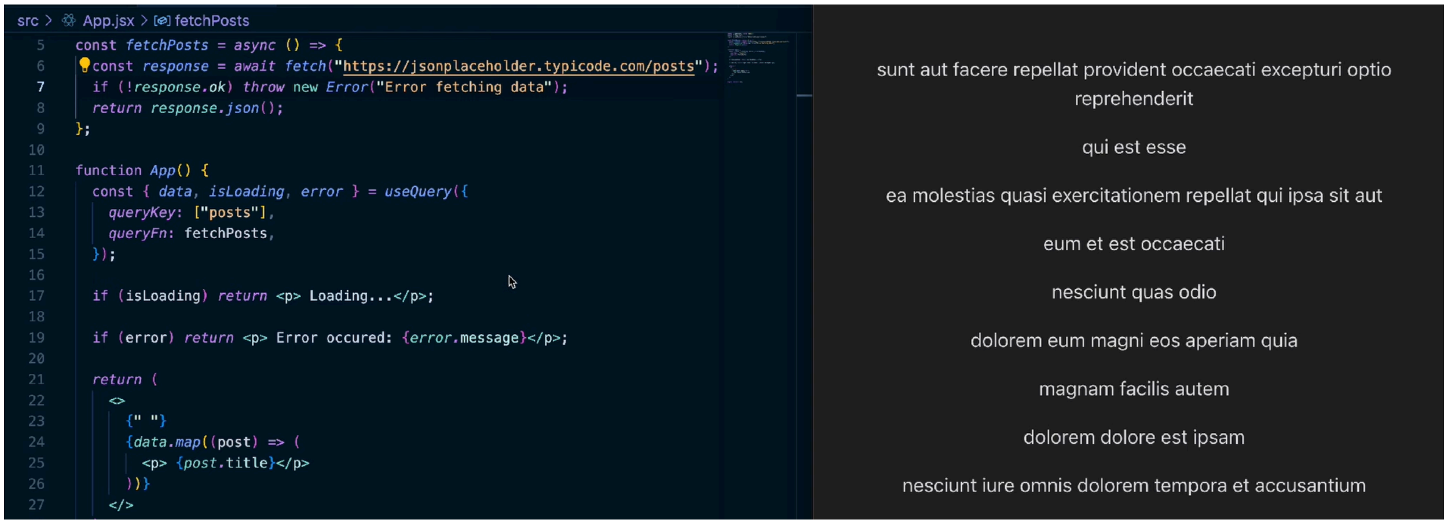


```
import React from "react";  6.9k (gzipped: 2.7k)
import ReactDOM from "react-dom/client";  511 (gzipped: 319)
import App from "./App.jsx";
import "./index.css";
import { QueryClient, QueryClientProvider } from "@tanstack/react-query";  23

const client = new QueryClient();

ReactDOM.createRoot(document.getElementById("root")).render(
  <React.StrictMode>
    <QueryClientProvider client={client}>
      <App />
    </QueryClientProvider>
  </React.StrictMode>
);
```

## Fetch Data



```
const fetchPosts = async () => {
  const response = await fetch("https://jsonplaceholder.typicode.com/posts");
  if (!response.ok) throw new Error("Error fetching data");
  return response.json();
};

function App() {
  const { data, isLoading, error } = useQuery({
    queryKey: ["posts"],
    queryFn: fetchPosts,
  });

  if (isLoading) return <p> Loading...</p>;

  if (error) return <p> Error occured: {error.message}</p>;

  return (
    <>
      {" "}
      {data.map((post) => (
        <p> {post.title}</p>
      ))}
    </>
```

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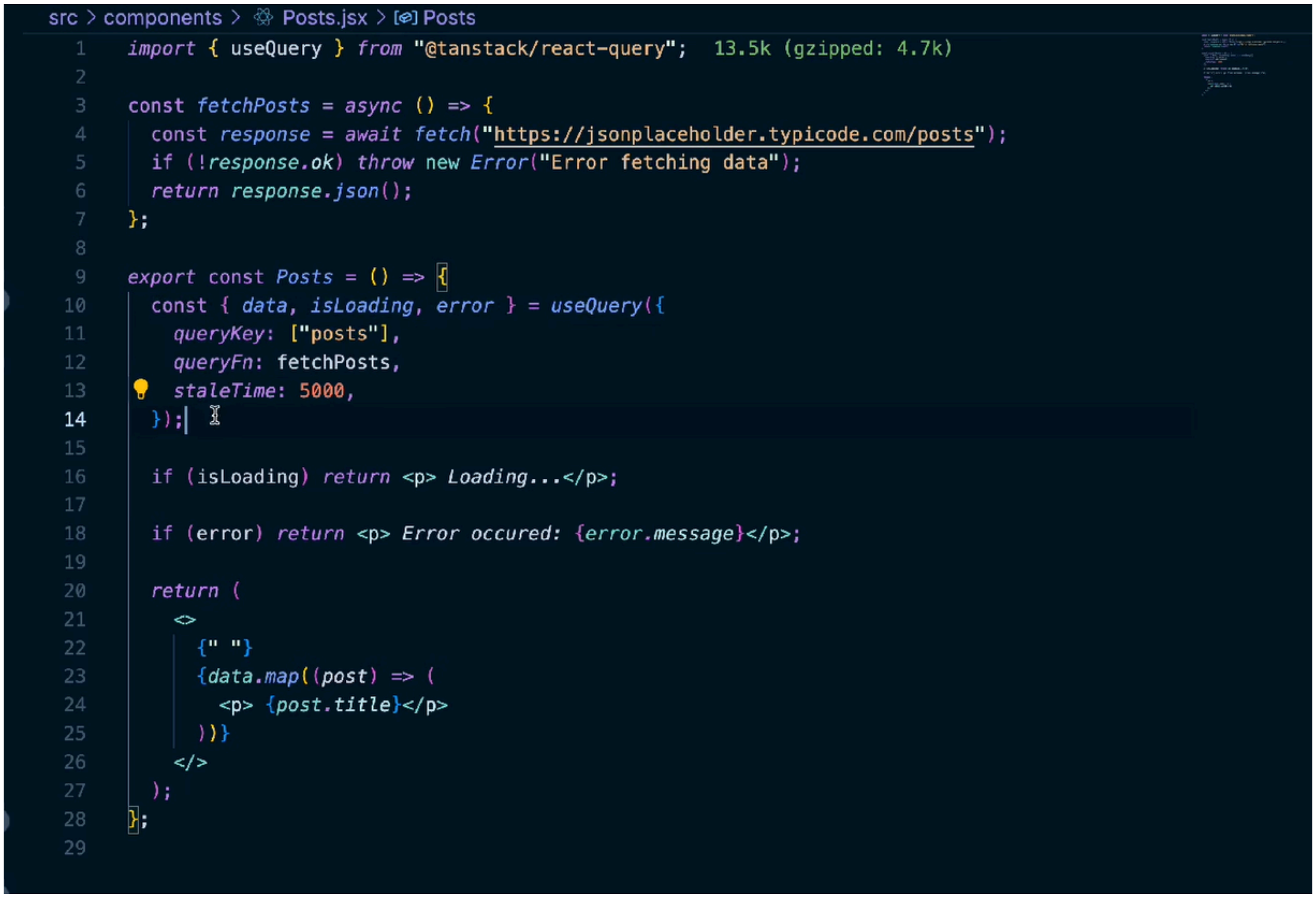
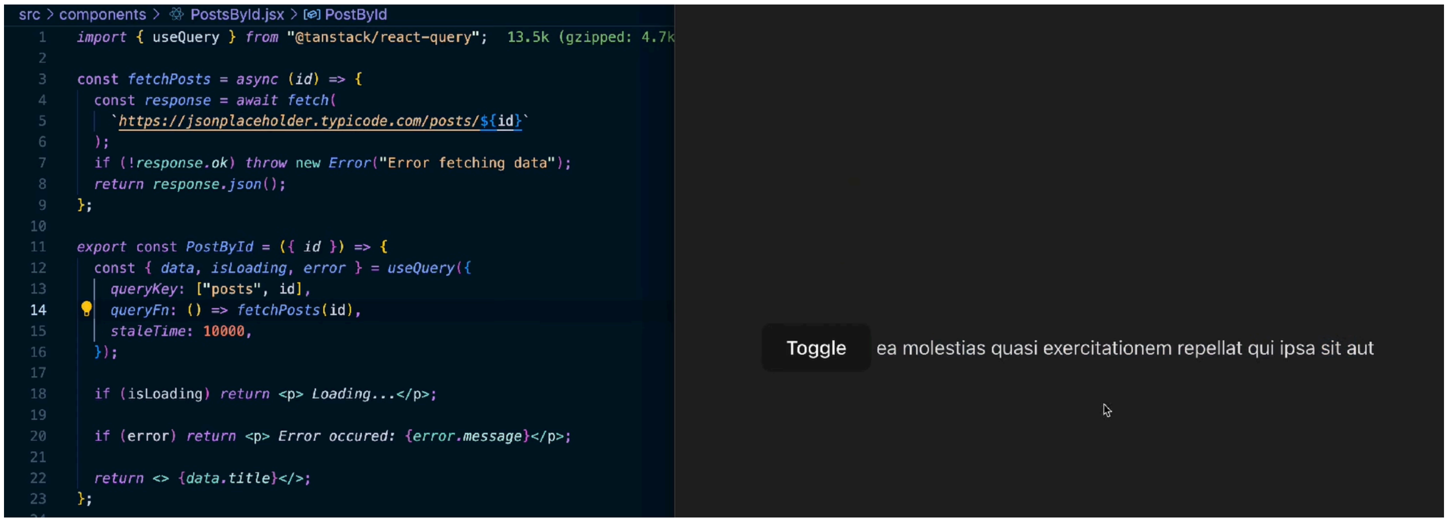
Keep fetching data after a certain time period (In this example, data is fetched every 5 seconds (5000ms))



src > components > Posts.jsx > Posts

```jsx
import { useQuery } from "@tanstack/react-query";  13.5k (gzipped: 4.7k)

const fetchPosts = async () => {
  const response = await fetch("https://jsonplaceholder.typicode.com/posts");
  if (!response.ok) throw new Error("Error fetching data");
  return response.json();
};

export const Posts = () => {
  const { data, isLoading, error } = useQuery({
    queryKey: ["posts"],
    queryFn: fetchPosts,
    staleTime: 5000,
  });

  if (isLoading) return <p> Loading...</p>;

  if (error) return <p> Error occured: {error.message}</p>;

  return (
    <>
      {" "}
      {data.map((post) => (
        <p> {post.title}</p>
      ))}
    </>
  );
};
```

Fetch data using ID



src > components > PostsById.jsx > PostById

```jsx
import { useQuery } from "@tanstack/react-query";  13.5k (gzipped: 4.7k

const fetchPosts = async (id) => {
  const response = await fetch(
    `https://jsonplaceholder.typicode.com/posts/${id}`
  );
  if (!response.ok) throw new Error("Error fetching data");
  return response.json();
};

export const PostById = ({ id }) => {
  const { data, isLoading, error } = useQuery({
    queryKey: ["posts", id],
    queryFn: () => fetchPosts(id),
    staleTime: 10000,
  });

  if (isLoading) return <p> Loading...</p>;

  if (error) return <p> Error occured: {error.message}</p>;

  return <> {data.title}</>;
};
```

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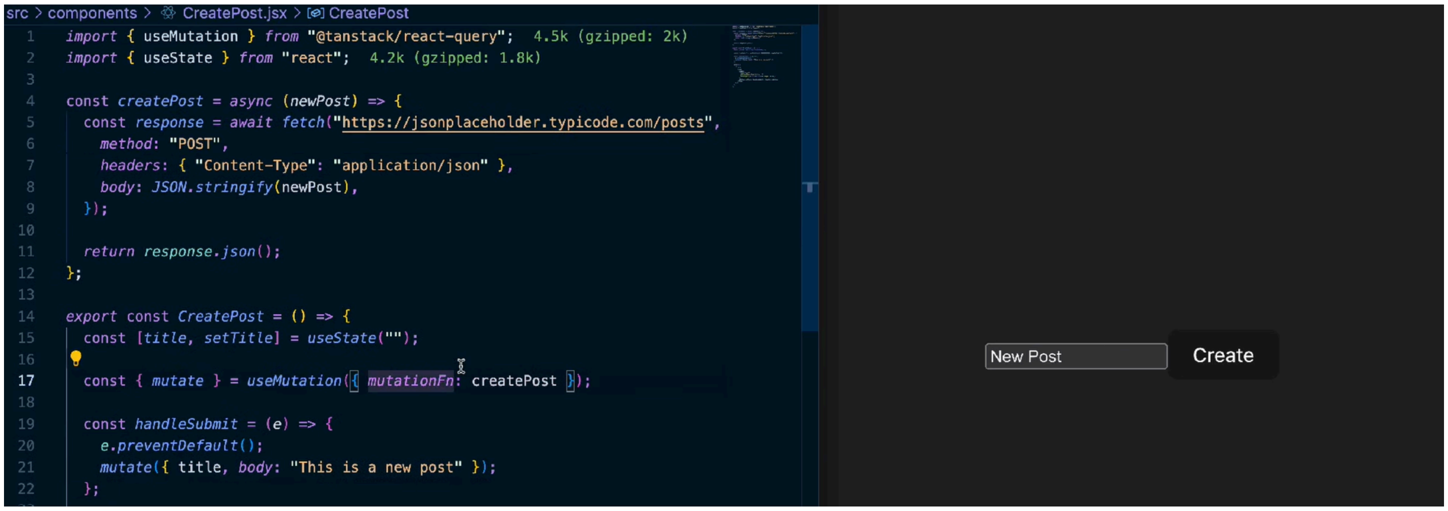
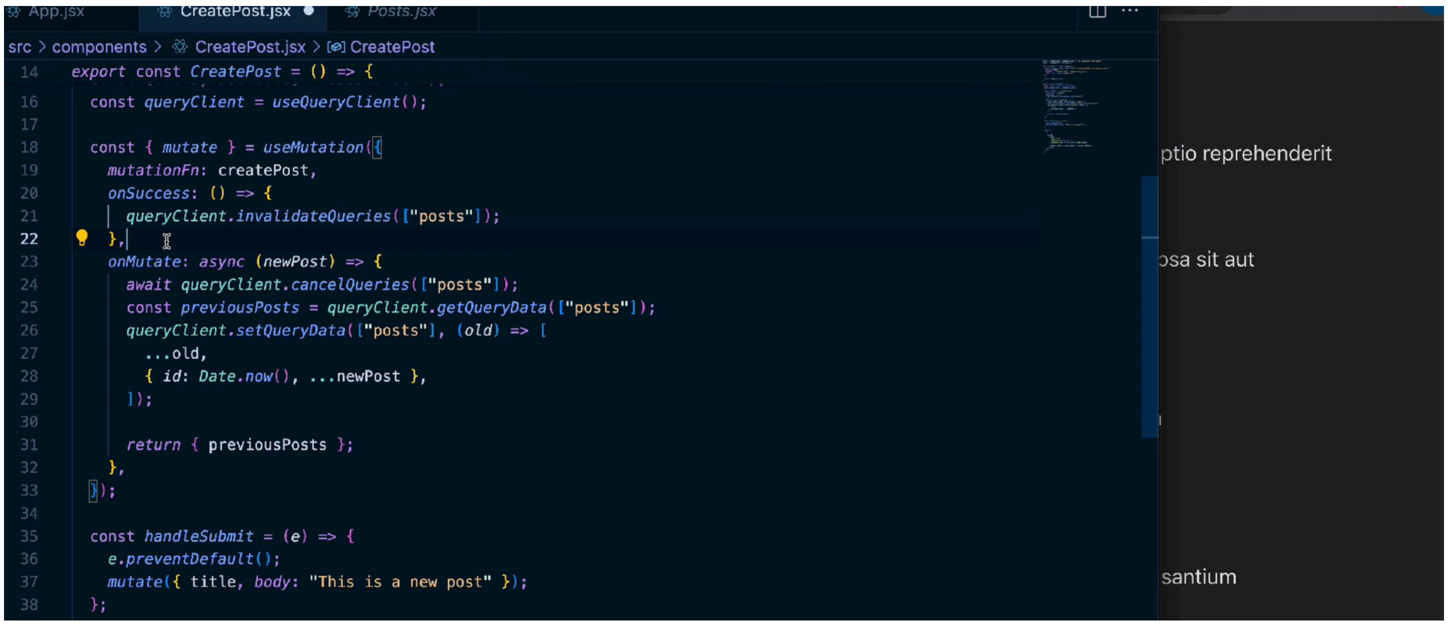
Posting data


src > components > CreatePost.jsx > CreatePost

```
import { useMutation } from "@tanstack/react-query";  4.5k (gzipped: 2k)
import { useState } from "react";  4.2k (gzipped: 1.8k)

const createPost = async (newPost) => {
  const response = await fetch("https://jsonplaceholder.typicode.com/posts",
    method: "POST",
    headers: { "Content-Type": "application/json" },
    body: JSON.stringify(newPost),
  });

  return response.json();
};

export const CreatePost = () => {
  const [title, setTitle] = useState("");

  const { mutate } = useMutation({ mutationFn: createPost });

  const handleSubmit = (e) => {
    e.preventDefault();
    mutate({ title, body: "This is a new post" });
  };
```

Implementing optimistic updates



src > components > CreatePost.jsx > CreatePost

```
export const CreatePost = () => {
  const queryClient = useQueryClient();

  const { mutate } = useMutation({
    mutationFn: createPost,
    onSuccess: () => {
      queryClient.invalidateQueries(["posts"]);
    },
    onMutate: async (newPost) => {
      await queryClient.cancelQueries(["posts"]);
      const previousPosts = queryClient.getQueryData(["posts"]);
      queryClient.setQueryData(["posts"], (old) => [
        ...old,
        { id: Date.now(), ...newPost },
      ]);

      return { previousPosts };
    },
  });

  const handleSubmit = (e) => {
    e.preventDefault();
    mutate({ title, body: "This is a new post" });
  };
```

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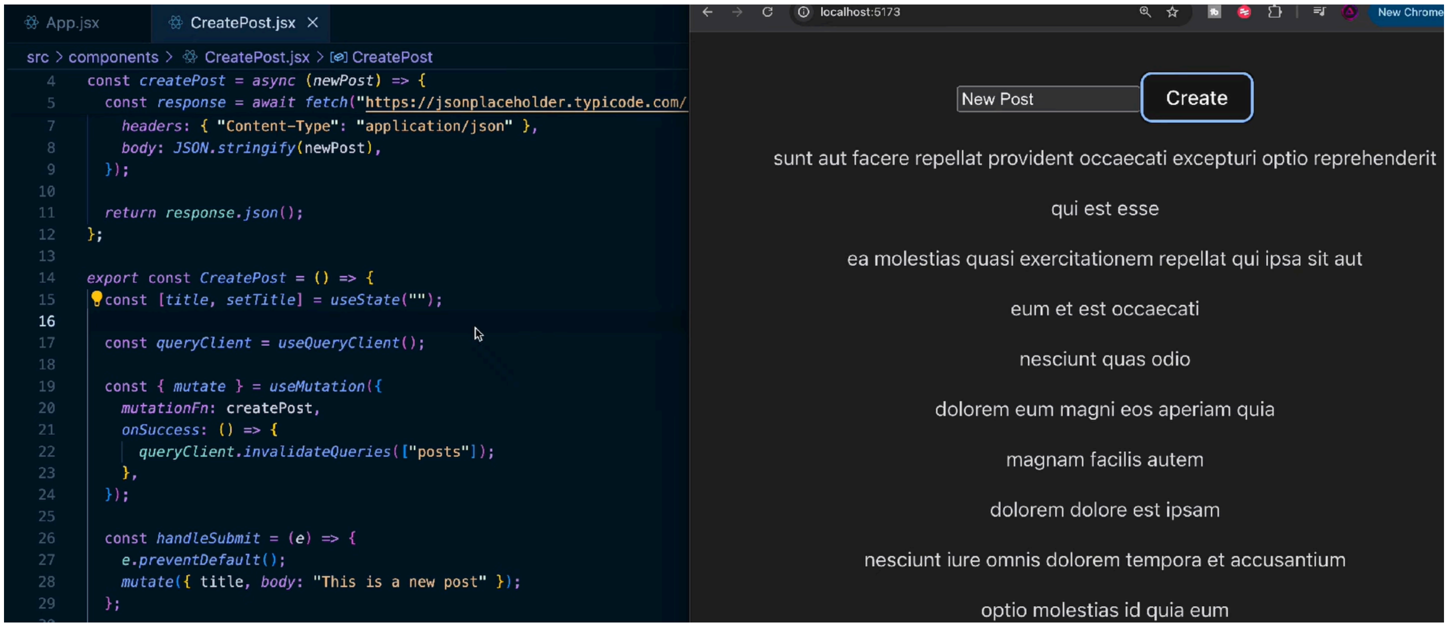
Referring to other queries



```
const createPost = async (newPost) => {
  const response = await fetch("https://jsonplaceholder.typicode.com/
    headers: { "Content-Type": "application/json" },
    body: JSON.stringify(newPost),
  });

  return response.json();
};

export const CreatePost = () => {
  const [title, setTitle] = useState("");

  const queryClient = useQueryClient();

  const { mutate } = useMutation({
    mutationFn: createPost,
    onSuccess: () => {
      queryClient.invalidateQueries(["posts"]);
    },
  });

  const handleSubmit = (e) => {
    e.preventDefault();
    mutate({ title, body: "This is a new post" });
  };
```

New Post
Create

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