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Mpl Practical 7

Steps to Make Your Vite React App a PWA

1. **Install Vite PWA Plugin**

   1. Open your terminal inside the project folder.

Run the command to install the PWA plugin:
npm install vite-plugin-pwa --save-dev

   2. This plugin helps to add service workers and caching automatically.

2 **Configure Vite for PWA**

   1. Open the `vite.config.js` file in your project.
   2. Import and add the PWA plugin inside the `plugins` section.
   3. Set up options like auto-updates, manifest, and caching.
   4. Save the file and restart the Vite server.

3. **Add `manifest.json` File**

   1. Go to the `public` folder in your project.
   2. Create a new file named `manifest.json`.
   3. Add details like the app name, icons, theme color, and display mode.
   4. This file helps browsers recognize your app as installable.

4. **Link the Manifest in `index.html`**

   1. Open `index.html` in the `public` folder.
   2. Add the following line inside the <head> section:
      <link rel="manifest" href="/manifest.json" />

This ensures the browser can detect and use the manifest file.

5. **Register the Service Worker**

   1. Open `index.js` or `index.jsx`.

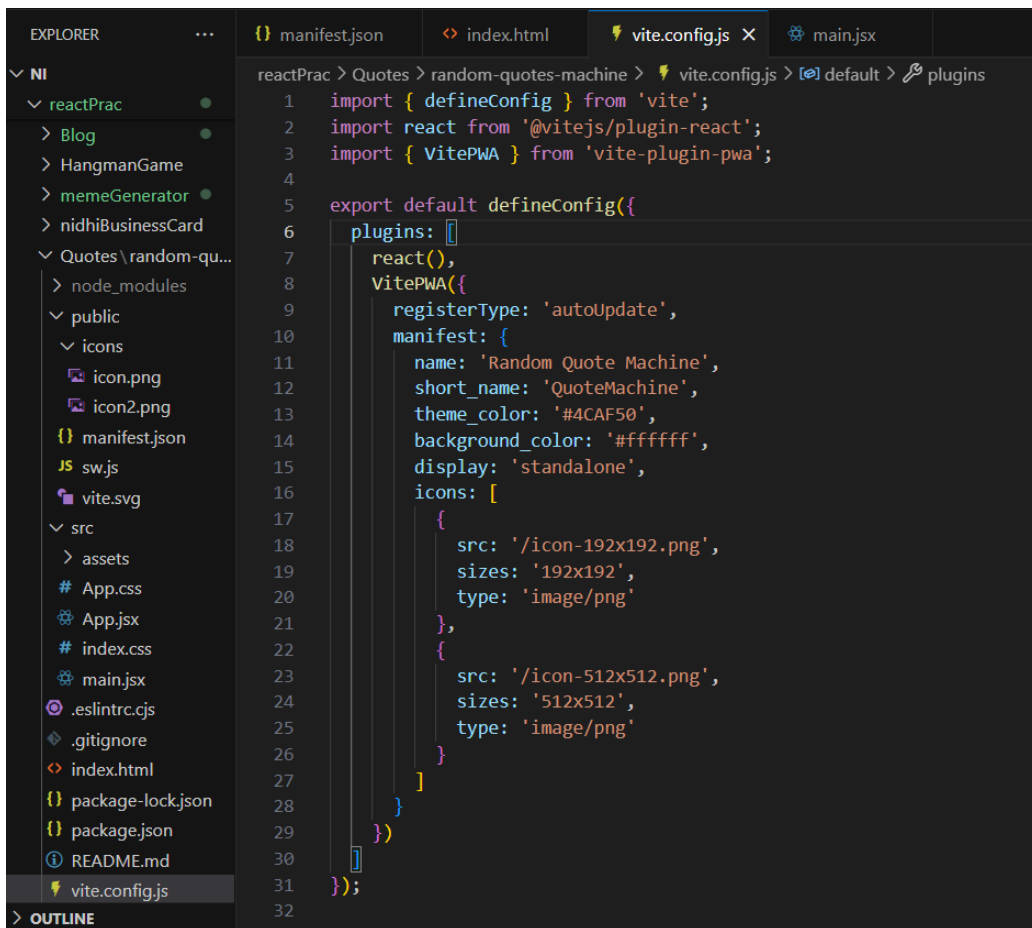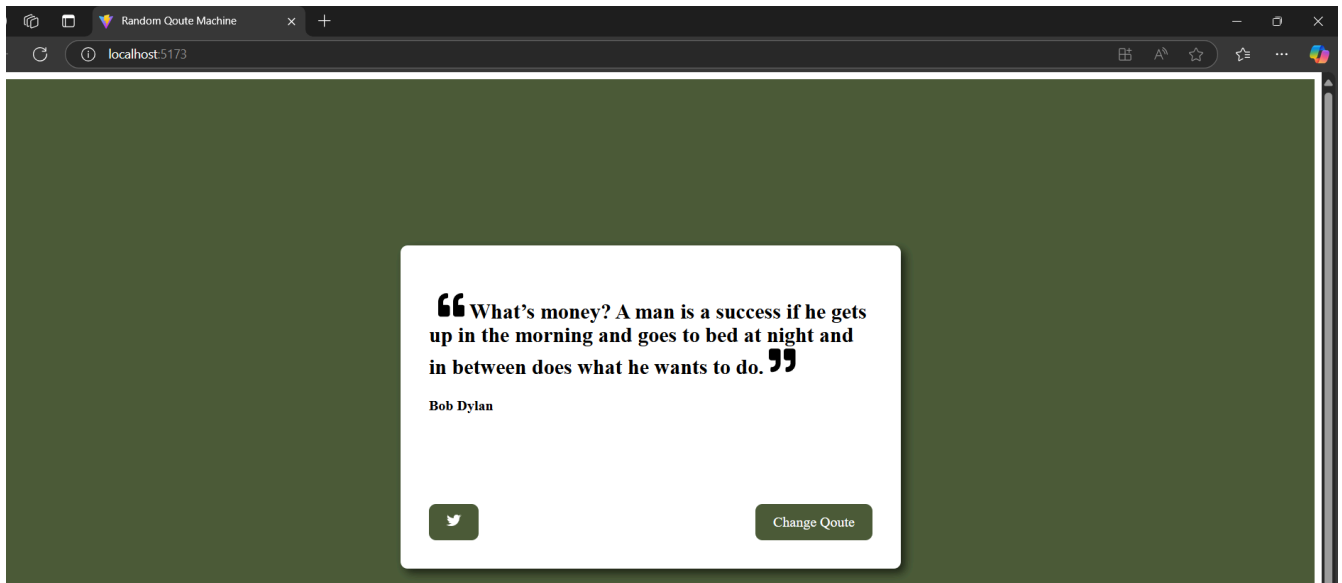 Import the service worker registration function:
import { registerSW } from 'virtual:pwa-register';
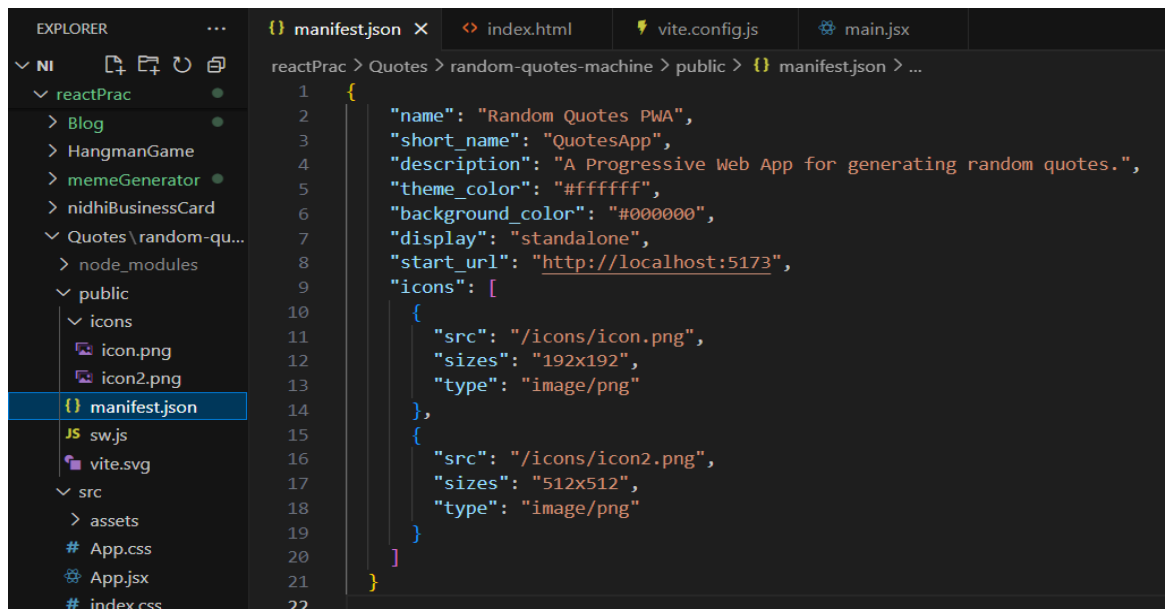**registerSW();**

   2. This ensures the service worker is registered when the app runs.

6. **Restart the App & Verify PWA**

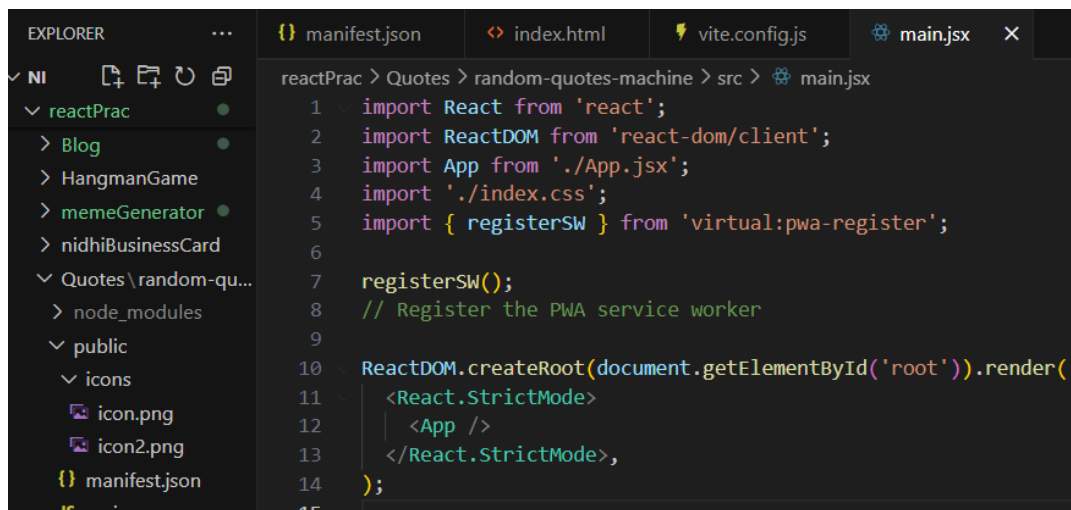Run the command to start the app:
```
npm run dev
```



```js
reactPrac > Quotes > random-quotes-machine > ⚡ vite.config.js > [@] default > 🔧 plugins
1    import { defineConfig } from 'vite';
2    import react from '@vitejs/plugin-react';
3    import { VitePWA } from 'vite-plugin-pwa';
4
5    export default defineConfig({
6      plugins: [
7        react(),
8        VitePWA({
9          registerType: 'autoUpdate',
10         manifest: {
11           name: 'Random Quote Machine',
12           short_name: 'QuoteMachine',
13           theme_color: '#4CAF50',
14           background_color: '#ffffff',
15           display: 'standalone',
16           icons: [
17             {
18               src: '/icon-192x192.png',
19               sizes: '192x192',
20               type: 'image/png'
21             },
22             {
23               src: '/icon-512x512.png',
24               sizes: '512x512',
25               type: 'image/png'
26             }
27           ]
28         }
29       })
30     ]
31   });
32
```

EXPLORER ...

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reactPrac
> Blog
> HangmanGame
> memeGenerator
> nidhiBusinessCard
∨ Quotes\random-qu...
  > node_modules
  ∨ public
    ∨ icons
      icon.png
      icon2.png
    {} manifest.json
    JS sw.js
    vite.svg
    ∨ src
      > assets
      # App.css
      App.jsx
      # index.css

Tabs: {} manifest.json ✕ | <> index.html | vite.config.js | main.jsx

reactPrac > Quotes > random-quotes-machine > public > {} manifest.json > ...

```json
{
    "name": "Random Quotes PWA",
    "short_name": "QuotesApp",
    "description": "A Progressive Web App for generating random quotes.",
    "theme_color": "#ffffff",
    "background_color": "#000000",
    "display": "standalone",
    "start_url": "http://localhost:5173",
    "icons": [
      {
        "src": "/icons/icon.png",
        "sizes": "192x192",
        "type": "image/png"
      },
      {
        "src": "/icons/icon2.png",
        "sizes": "512x512",
        "type": "image/png"
      }
    ]
}
```

EXPLORER ...

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reactPrac
> Blog
> HangmanGame
> memeGenerator
> nidhiBusinessCard
∨ Quotes\random-qu...
  > node_modules
  ∨ public
    ∨ icons
      icon.png
      icon2.png
    {} manifest.json
    JS sw.js

Tabs: {} manifest.json | <> index.html | vite.config.js | main.jsx ✕

reactPrac > Quotes > random-quotes-machine > src > main.jsx

```jsx
import React from 'react';
import ReactDOM from 'react-dom/client';
import App from './App.jsx';
import './index.css';
import { registerSW } from 'virtual:pwa-register';

registerSW();
// Register the PWA service worker

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

Random Quotes PWA - Random Qoute Machine

Strive not to be a success, but rather to be of value.

Albert Einstein

Change Qoute

4.   This file helps browsers recognize your app as installable.