

# Training Day 20 Report

Date: 18 July 2025

Project: MERN Notes App

## Topic Covered: Search and Filter Functionality for Notes

On the twentieth day, we added search and filter functionality to the Notes page. Users can now search by title or content and filter notes for faster navigation.

## Concepts Learned

- Using React state to manage search queries.
- Filtering notes dynamically on the client side.
- Implementing case-insensitive search for better usability.

## Search Input

Listing 1: Search bar component

```
1 function SearchBar({ query, setQuery }) {
2   return (
3     <input
4       type="text"
5       placeholder="Search notes..."
6       value={query}
7       onChange={(e) => setQuery(e.target.value)}
8     />
9   );
10 }
11
12 export default SearchBar;
```

## Filtering Notes

In `src/screens/Notes.js`:

Listing 2: Filtering notes by query

```
1 import React, { useState } from 'react';
2 import SearchBar from '../components/SearchBar';
3
4 function Notes({ notes }) {
5   const [query, setQuery] = useState('');
6
7   const filteredNotes = notes.filter(note =>
8     note.title.toLowerCase().includes(query.toLowerCase()) ||
9     note.content.toLowerCase().includes(query.toLowerCase())
10  );
11 }
```

```

12   return (
13     <div>
14       <SearchBar query={query} setQuery={setQuery} />
15       <ul>
16         {filteredNotes.map(note => (
17           <li key={note._id}>{note.title} - {note.content}</li>
18         ))}
19       </ul>
20     </div>
21   );
22 }
23
24 export default Notes;

```

## Optional: Server-Side Filtering

- For larger datasets, filtering can be moved to the backend.
- Example: API endpoint `/api/notes?search=query` returning filtered results.

## Testing the Feature

- Entered a keyword in the search bar → notes list updated instantly.
- Verified case-insensitive matching.
- Tested with no matches → displayed an empty list.

## Outcome of the Day

- Implemented a dynamic search bar for notes.
- Enabled filtering by both title and content.
- Improved overall user experience for managing large numbers of notes.