

Learner Assignment Submission Format

Learner Details

- **Name:**H O Akash
 - **Enrollment Number:**SU625MR015
 - **Batch / Class:**MERN Stach
 - **Assignment:**React JS
 - **Date of Submission:**06/08/2025
-

Problem Solving Activity 1.1

1. Program Statement

Create a React component that filters a list of users based on a search query. The component should display a list of users whose names match the search query.

2. Algorithm

1. Define a React component Userfilter that accepts search, setSearch, and users as props.
 2. Use the filter method to create a new array filteredUsers that includes only the users whose names match the search query.
 3. Use the map method to render a list of user names in an ordered list (ol).
 4. Update the search state when the user types in the search input field.
-

3. Pseudocode

BEGIN

DEFINE Userfilter component

IMPORT React

DEFINE filteredUsers array

FILTER users array based on search query

RENDER search input field

RENDER list of user names

UPDATE search state on input change

END

4. Program Code(App.jsx)

```
import React, { useState } from 'react';
import Userfilter from './Userfilter';
import './App.css';

const App = () => {
  const [search, setSearch] = useState("");

  const users = [
    {id:1,name:'jhon'},
    {id:2,name:'jack'},
    {id:3,name:'akash'},
    {id:4,name:'rakesh'},
    {id:5,name:'rakshith'},
    {id:6,name:'nikil'},
    {id:7,name:'adnan'},
    {id:8,name:'sariya'},
    {id:9,name:'afreen'},

    { id: 1, name: 'Joo' },
    { id: 2, name: 'Mad' },
    { id: 3, name: 'Search' }
```

```
];

return (
  <div>
    <h1>Filter List</h1>
    <Userfilter search={search} setSearch={setSearch} users={users}/>
  </div>
);
};

export default App;
```

5. Program Code(Userfilter.jsx)

```
import React from 'react';

const Userfilter = ({ search, setSearch, users }) => {
  const filteredUsers = users.filter(user =>
    user.name.toLowerCase().includes(search.toLowerCase())
  );

  return (
    <div>
      <h2>User Lists</h2>
      <input type="text" placeholder="Search users"
        value={search}

```

```
        onChange={ (e) => setSearch(e.target.value) }

        />

        <ol>

            {filteredUsers.map(user => (

                <li key={user.id}>{user.name}</li>

            ))}

        </ol>

    </div>

    );

};

export default Userfilter;
```



6. Screenshots of Output

Filter List

User Lists

1. jhon
2. jack
3. akash
4. rakesh
5. rakshith
6. nikil
7. adnan
8. sariya
9. afreen
10. Joo



7. Observation / Reflection

The given React code is a simple implementation of a search filter. Here are some reflections:

- The code uses the filter method to create a new array of users that match the search query, which is efficient and easy to understand.
- The code uses the toLowerCase method to make the search query case-insensitive, which is a good practice.
- The code uses the includes method to check if the user name includes the search query, which is a good approach for a simple search filter.
- The code uses the map method to render a list of user names, which is a common pattern in React.

