

Developing Airline Information Application

Exploring Components, Filters, and Search Functionality

Project Objectives

- Developing a dynamic application to display and filter airline information using React.
- Utilizing components such as Card, SearchBar, and Filter.

Card Component

- Represents individual airline information in a card component.
- Displays logo, name, alliance, phone, and website information.
- Additional details appear on user hover.

```
import { useState } from "react";
import { getAllianceNameByCode } from "../util/util";

const getHostname = (site) => {
  try {
    return new URL(site).hostname;
  } catch (e) {
    return "";
  }
};

const Card = ({ site, code, alliance, phone, name, logoURL }) => {
  const [detailsHidden, setDetailsHidden] = useState(true);

  const allianceName = getAllianceNameByCode(alliance);
  const hostname = getHostname(site);

  return (
    <div
      className="card"
      onMouseEnter={() => setDetailsHidden(false)}
      onMouseLeave={() => setDetailsHidden(true)}
    >
      <div style={{ display: "flex", alignItems: "center" }}>
        <img
          className="card--logo"
          src={"https://kayak.com" + logoURL}
          alt={"airline-logo"}
        />
        <div className="card--info">
          <p
            className={

```

SearchBar Component

- Implements a search bar for filtering airlines based on their names.
- Manages search term using React state.

```
import React, { useState } from 'react';

const SearchBar = ({ onSearch }) => {
  const [searchTerm, setSearchTerm] = useState('');

  const handleInputChange = (event) => {
    setSearchTerm(event.target.value);
  };

  const handleSearch = (event) => {
    event.preventDefault();
    onSearch(searchTerm);
  };

  return (
    <div>
      <form onSubmit={handleSearch}>
        <input
          type="text"
          placeholder="Enter airline name"
          value={searchTerm}
          onChange={handleInputChange}
        />
        <button type="submit" onClick={handleSearch}><i class="fa-solid fa-magnifying-glass"></i></button>
      </form>
    </div>
  );
};

export default SearchBar;
```

Filter Component

- Provides functionality to filter airlines based on their alliances.
- Manages selected filters using React state.

```
import { useState } from "react";
import { getAllianceNameByCode } from "../util/util";
import Checkbox from "../Checkbox";

const Filter = ({ onChange }) => {
  const [filters, setFilters] = useState({});

  const alliances = ["OW", "ST", "SA"];

  const onFilterChange = (code) => {
    const current = {
      ...filters,
      [code]: filters[code] === undefined ? true : !filters[code]
    };
    setFilters(current);

    const filterBy = [];
    alliances.forEach((alliance) => {
      if (current[alliance]) {
        filterBy.push(alliance);
      }
    });
    console.log(current, code);
    onChange(filterBy);
  };

  const allianceComponents = alliances.map((alliance) => {
    if (alliance === "none") return null;
    return (
      <Checkbox
        className="filter--item"
        key={alliance}
        text={getAllianceNameByCode(alliance)}
        onChange={() => {
          onFilterChange(alliance);
        }}
      />
    );
  });
}
```


Airlines Component

- Asynchronously retrieves airline data from an external API using the `useEffect` hook.
- Dynamically filters data based on alliances and search terms.

```
import React, { useEffect, useState } from 'react';
import fetchJsonp from 'fetch-jsonp';
import CardGrid from '../components/CardGrid';
import Filter from '../components/FilterArea';
import Title from '../components/PageTitle';
import SearchBar from '../components/SearchBar';

const api = 'https://www.kayak.com/h/mobileapis/directory/airlines/homework';

const Airlines = () => {
  const [airlines, setAirlines] = useState([]);
  const [showAirlines, setShowAirlines] = useState([]);
  const [filters, setFilters] = useState([]);
  const [searchTerm, setSearchTerm] = useState(''); // Add state for search term

  useEffect(() => {
    fetchJsonp(api, {
      jsonpCallbackFunction: 'invalidCallbackFunctionName',
    })
      .then((response) => response.json())
      .then((res) => setAirlines(res));
  }, []);

  useEffect(() => {
    if (filters.length === 0) {
      setShowAirlines(airlines);
      return;
    }
  })
}
```

```

    setShowAirlines(
      airlines.filter((airline) => {
        return filters.includes(airline.alliance);
      })
    );
  }, [filters, airlines]);

useEffect(() => {
  // Add a search filter
  if (searchTerm.trim() === '') {
    setShowAirlines(airlines);
    return;
  }
  setShowAirlines(
    airlines.filter((airline) =>
      airline.name.toLowerCase().includes(searchTerm.toLowerCase())
    )
  );
}, [searchTerm, airlines]);

const onFilterChange = (filterBy) => {
  setFilters(filterBy);
};

const onSearch = (searchTerm) => {
  setSearchTerm(searchTerm);
};

return (
  <div>
    <Title text="A I R L I N E S" />
    <SearchBar onSearch={onSearch} />
    <Filter onChange={onFilterChange} />
    <CardGrid items={showAirlines} />
  </div>
);

export default Airlines;

```

Application Structure

- Illustrates the main structure of the React application.
- Main container includes TitleBar and Airlines components.

```
import "../styles.css";
import Airlines from "../pages/Airlines";
import TitleBar from "../components/TitleBar";
export default function App() {
  return (
    <div className="App">
      <TitleBar />
      <div className="container">
        <Airlines />
      </div>
    </div>
  );
}
```

Conclusion

- Implemented a dynamic application to display airline information using React.
- Technical understanding of the roles and interactions of each component.
- Leveraged powerful features of React as evident in the code.

THANK YOU

GitHub URL for this project:

https://github.com/khasanlee/WP_PROJECT