```
import React, { Component } from "react";

class Sum extends Component {
 constructor( ) {
  super ();

  this.state = {
   number1: 0,
   number2: 0,
   sum: null,
  };
 }

 input1(num) {
  this.setState({ number1: parseInt(num) });
 }
 input2(number) {
  this.setState({ number2: parseInt(number) });
 }

 addNums(num1, num2) {
  this.setState({ sum: num1 + num2 });
 }

 render( ) {
  return (
   <div className="puzzleBox sumPB">
    <h4>Sum</h4>
    <input
     className="inputLine"
     onChange={(e) => this.input1(e.target.value)}
    ></input>
    <input
     className="inputLine"
     onChange={(e) => this.input2(e.target.value)}
    ></input>
    <button
     className="confirmationButton"
     onClick={() => this.addNums(this.state.number1, this.state.number2)}
    >
     Add
    </button>
    <span className="resultsBox">
     Sum: {JSON.stringify(this.state.sum)}
    </span>
   </div>
  );
 }
}

export default Sum;
```

```
import React, { Component } from "react";
import TopicBrowser from "./components/TopicBrowser/TopicBrowser";
import EvenAndOdd from "./components/Topics/EvenAndOdd";
import FilterObject from "./components/Topics/FilterObject";
import FilterString from "./components/Topics/FilterString";
import Palindrome from "./components/Topics/Palindrome";
import Sum from "./components/Topics/Sum";

class App extends Component {
 render( ) {
  return (
   <div>
    <TopicBrowser />
    <EvenAndOdd />
    <FilterObject />
    <FilterString />
    <Palindrome />
    <Sum />
   </div>
  );
 }
}

export default App;
```

```
import React from "react";

const TopicBrowser = () => {
 return <p>Hello World</p>;
};

export default TopicBrowser;
```

```
import React, { Component } from "react";

class Palindrome extends Component {
 constructor( ) {
  super( );

  this.state = {
   userInput: "",
   palindrome: "",
  };
 }

 inputStr(val) {
  this.setState({ userInput: val });
 }

 isPalindrome(userInput) {
  let forwards = this.state.userInput;
  let backwards = this.state.userInput;
  backwards = backwards.split("").reverse().join("");

  if (forwards === backwards) {
   this.setState({ palindrome: "true" });
  } else {
   this.setState({ palindrome: "false" });
  }
 }

 render( ) {
  return (
   <div className="puzzleBox filterStringPB">
    <h4>Palindrome</h4>
    <input
     className="inputLine"
     onChange={(e) => this.inputStr(e.target.value)}
    ></input>
    <button
     className="confirmationButton"
     onClick={() => this.isPalindrome(this.state.userInput)}
    >
     Palindrome
    </button>
    <span className="resultsBox">Palindrome: {this.state.palindrome}</span>
   </div>
  );
 }
}

export default Palindrome;
```

```jsx
import React, { Component } from "react";

class EvenAndOdd extends Component {
 constructor () {
  super( );

  this.state = {
   evenArray: [ ],
   oddArray: [ ],
   userInput: "",
  };
 }

 saveInput(num) {
  this.setState({ userInput: num });
 }

 EvenAndOddSeparator(userInput) {
  let arr = userInput.split(",");
  let evens = [ ];
  let odds = [ ];

  for (let i = 0; i < arr.length; i++) {
   if (arr[i] % 2 === 0) {
    evens.push(parseInt(arr[i], 10));
   } else {
    odds.push(parseInt(arr[i], 10));
   }
  }

  this.setState({ evenArray: evens, oddArray: odds });
 }

 render( ) {
  return (
   <div className="puzzleBox evenAndOddPB">
    <h4>Evens and Odds</h4>
    <input
     className="inputLine"
     onChange={(e) => this.saveInput(e.target.value)}
    />
    <button
     className="confirmationButton"
    onClick={() => this.EvenAndOddSeparator(this.state.userInput)}
    >
     Click
    </button>
    <span className="resultsBox">
     Evens: {JSON.stringify(this.state.evenArray)}{" "}
    </span>
    <span className="resultsBox">
     Odds: {JSON.stringify(this.state.oddArray)}{" "}
    </span>
   </div>
  );
 }
}

export default EvenAndOdd;
```

```jsx
import React, { Component } from "react";

class FilterString extends Component {
 constructor( ) {
  super( );

  this.state = {
   unFilteredString: [
    "Abby",
    "Bryce",
    "Jason",
    "Linda",
    "Louis",
    "Jessica",
    "Jaime",
    "Zack",
    "David",
    "Amy",
    "Scout",
    "Jordan",
   ],
   userInput: "",
   filteredArray: [],
  };
 }

 inputVal(str) {
  this.setState({ userInput: str });
 }

 filtered(prop) {
  let unFilteredString = this.state.unFilteredString;
  let userInput = this.state.userInput;
  let arr = [];

  for (let i = 0; i < unFilteredString.length; i++) {
   if (unFilteredString[i].includes(userInput)) {
    arr.push(unFilteredString[i]);
   }
  }
  this.setState({ filteredNames: arr });
 }

 render( ) {
  return (
   <div className="puzzleBox filterStringPB">
    <h4>Filter String</h4>
    <span className="puzzleText">
     Names:
     {JSON.stringify(this.state.unFilteredString)}
    </span>
    <input
     className="inputLine"
     onChange={(e) => this.inputVal(e.target.value)}
    ></input>
    <button
     className="confirmationButton"
     onClick={() => this.filtered(this.state.userInput)}
    >
     {" "}
     Filter{" "}
    </button>
    <span className="resultsBox filterStringRB">
     {" "}
     Filtered Names: {JSON.stringify(this.state.filteredNames)}{" "}
    </span>
   </div>
  );
 }
}

export default FilterString;
```

```jsx
import React, { Component } from "react";

class FilterObject extends Component {
 constructor( ) {
  super( );

  this.state = {
   unFilteredArray: [
    {
     name: "Charolette Lee",
     favoriteFood: "pizza",
     favoriteColor: "pink",
    },
    {
     name: "Jason Kim",
     favoriteDrink: "lemonade",
     favoriteArtist: "Taylor Swift",
    },
    { name: "David White", favoriteShow: "the office", height: "6'0" },
   ],
   filteredArray: [],
   userInput: "",
  };
 }

 saveInput(val) {
  this.setState({ userInput: val });
 }

 filtered(prop) {
  let unFilteredArray = this.state.unFilteredArray;
  let arr = [ ];

  for (let i = 0; i < unFilteredArray.length; i++) {
   if (unFilteredArray[i].hasOwnProperty(prop)) {
    arr.push(unFilteredArray[i]);
   }
  }

  this.setState({ filteredArray: arr });
 }

 render( ) {
  return (
   <div className="puzzleBox filterObjectPB">
    <h4>Filter Object</h4>
    <span className="puzzleText">
     {JSON.stringify(this.state.unFilteredArray)}{" "}
    </span>
    <input
     className="inputLine"
     onChange={(e) => this.saveInput(e.target.value)}
    ></input>
    <button
     className="confirmationButton"
     onClick={() => this.filtered(this.state.userInput)}
    >
     See Filtered Object
    </button>
    <span className="resultsBox filterObjectRB">
     Filtered: {JSON.stringify(this.state.filteredArray)}
    </span>
   </div>
  );
 }
}

export default FilterObject;
```