App.js

```
import Game from './components/Game';

export default function App() {
  return (
    <div className="app">
      <Game />
    </div>
  );
}
```

Index.js

```
import React from 'react';
import ReactDOM from 'react-dom/client';
import './styles.css';
import App from './app.js';

const root = ReactDOM.createRoot(document.getElementById('root'));
root.render(<App />);
```

style.css

```
body {
    font-family: sans-serif;
    margin: 20px;
    text-align: center;
  }

  .square {
    width: 60px;
    height: 60px;
    background: #fff;
    border: 1px solid #999;
    font-size: 24px;
    font-weight: bold;
    cursor: pointer;
  }

  .board-row {
    display: flex;
    justify-content: center;
```

```
  }

  .status {
    margin-bottom: 10px;
    font-size: 20px;
  }

  .game {
    display: flex;
    flex-direction: row;
    justify-content: center;
    gap: 40px;
  }
```

calculateWinner.js

```
export default function calculateWinner(squares) {
    const lines = [
      [0, 1, 2], [3, 4, 5], [6, 7, 8],
      [0, 3, 6], [1, 4, 7], [2, 5, 8],
      [0, 4, 8], [2, 4, 6],
    ];
    for (let [a, b, c] of lines) {
      if (squares[a] && squares[a] === squares[b] && squares[a] === squares[c]) {
        return squares[a];
      }
    }
    return null;
  }
```

Board.js

```
import Square from './Square';
import calculateWinner from '../utils/calculateWinner';

export default function Board({ xIsNext, squares, onPlay }) {
  function handleClick(i) {
    if (calculateWinner(squares) || squares[i]) return;

    const nextSquares = squares.slice();
    nextSquares[i] = xIsNext ? 'X' : 'O';
    onPlay(nextSquares);
  }
```

```
  const winner = calculateWinner(squares);
  const status = winner
    ? 'Winner: ' + winner
    : 'Next player: ' + (xIsNext ? 'X' : 'O');

  return (
    <>
      <div className="status">{status}</div>
      <div className="board-row">
        {[0, 1, 2].map(i => (
          <Square key={i} value={squares[i]} onSquareClick={() => handleClick(i)}
/>
        ))}
      </div>
      <div className="board-row">
        {[3, 4, 5].map(i => (
          <Square key={i} value={squares[i]} onSquareClick={() => handleClick(i)}
/>
        ))}
      </div>
      <div className="board-row">
        {[6, 7, 8].map(i => (
          <Square key={i} value={squares[i]} onSquareClick={() => handleClick(i)}
/>
        ))}
      </div>
    </>
  );
}
```

Game.js

```
import { useState } from 'react';
import Board from './Board';

export default function Game() {
  const [history, setHistory] = useState([Array(9).fill(null)]);
  const [currentMove, setCurrentMove] = useState(0);
  const xIsNext = currentMove % 2 === 0;
  const currentSquares = history[currentMove];

  function handlePlay(nextSquares) {
    const nextHistory = [...history.slice(0, currentMove + 1), nextSquares];
```

```
    setHistory(nextHistory);
    setCurrentMove(nextHistory.length - 1);
  }

  function jumpTo(nextMove) {
    setCurrentMove(nextMove);
  }

  const moves = history.map((squares, move) => {
    const description = move ? 'Go to move #' + move : 'Go to game start';
    return (
      <li key={move}>
        <button onClick={() => jumpTo(move)}>{description}</button>
      </li>
    );
  });

  return (
    <div className="game">
      <div className="game-board">
        <Board xIsNext={xIsNext} squares={currentSquares} onPlay={handlePlay} />
      </div>
      <div className="game-info">
        <ol>{moves}</ol>
      </div>
    </div>
  );
}
```

Square.js

```
export default function Square({ value, onSquareClick }) {
    return (
      <button className="square" onClick={onSquareClick}>
        {value}
      </button>
    );
  }
```