# React Using Typescript
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**Prerequisites**
- Basic HTML and CSS skills
- Intermediate JavaScript skills

**Objectives**

- Identify the right set of structures and state containers for your React application
- Understand and use React, React Router, and other popular libraries
- Use styled-components to create presentational components (CSS in TSX)
- Implement server-side rendering for SEO benefits and to reduce initial load times
- Create, build, and deploy a React.js application using the React.js CLI
- Using MS UI Fabrics for interactive UI development

**Day 1**

1. **Introduction to ES6 and Typescript**
Learn major concepts of ES6 standards and Typescript using OOP concepts

2. **React 16 +**
This is a complete hands-on training program with all the new features of recently released React 16.8

3. **Explore ES6 & beyond**
Learn concepts of modern JS starting with ES6 and go beyond with further versions

4. **TSX**
Learn how to code UI using declarative syntax JSX

5. **Components**
Create components, decompose UI into smaller components and compose them

to make larger pages

Day 2

6. **State management**
Learn how to manage state in react applications and best practices

7. **Code splitting & Lazy loading**
Understand the need to code splitting and know how to implement the same

8. **Hooks & context**
Use the advantages of hooks to power function components with state, life cycle and context access

9. **Routing**
Learn who to implement routing in react application using react-router

10. **Isomorphic React**
Learn the benefits of universal react and how to implement

Day 3

11. **HTTP Communication**
Using Fetch to achieve HTTP based client-server communication
Working with REST API

12. Integration of React and Microsoft UI fabrics
Learn few important components usage with React

13. **Unit testing**
Learn how to unit test react applications using jest & enzyme

14. **Debugging**
Learn how to debug react applications using chrome and vscode