Global Horizon
TRAINING CENTER

Training Course:
Exploring the E&P Value Chain: Bridging Front-end Development and Innovation

13 - 17 January 2025
Liverpool (UK)

Training Course:
Exploring the E&P Value Chain: Bridging Front-end Development and Innovation

Training Course code: IT1999 From: 13 - 17 January 2025 Venue: Liverpool (UK) - Training Course Fees: 5775 ⏻ Euro

Introduction

The E&P Value Chain & Front-end Development training program is designed to bridge the gap between the oil and gas industry's Exploration and Production E&P value chain and the world of front-end web development. By combining these two domains, participants will gain a comprehensive understanding of the E&P industry while acquiring the skills to create interactive and user-friendly web applications for the sector. This intensive program offers a hands-on learning experience, providing participants with practical knowledge and real-world applications.

Methodologies

The training program will employ a blended learning approach, combining theoretical concepts with practical exercises and project-based work. The methodologies used will include:

1. Lectures and Presentations: Experienced instructors will deliver informative sessions on E&P fundamentals, front-end development concepts, and industry best practices.
2. Hands-on Exercises: Participants will engage in coding exercises and activities to reinforce their understanding of HTML5, CSS3, JavaScript, and front-end frameworks.
3. Collaborative Projects: Participants will work individually or in groups to develop web-based applications that integrate E&P data and demonstrate their front-end development skills.
4. Case Studies: Real-world case studies and industry examples will be presented to showcase the practical applications of the E&P value chain and front-end development.
5. Discussions and Q&A Sessions: Interactive sessions will encourage participant engagement, foster knowledge sharing, and address any questions or concerns.

Target Audience

This training program is suitable for individuals who have a basic understanding of programming concepts and a keen interest in the E&P industry and web development. The target audience includes:

1. Oil and Gas Professionals: Geologists, engineers, data analysts, and other industry practitioners who want to enhance their knowledge of the E&P value chain and acquire front-end development skills.
2. Web Developers: Front-end developers who wish to expand their expertise into the oil and gas industry and gain insights into E&P operations.
3. Students and Graduates: Individuals pursuing degrees or careers in computer science, geosciences, or related fields who want to explore the intersection of E&P and front-end development.

Objectives

By the end of the training program, participants will:

1. Understand the key stages and processes of the E&P value chain, including exploration, development, and production.
2. Gain proficiency in front-end web development technologies, including HTML5, CSS3, JavaScript, and front-end frameworks.
3. Be able to create interactive and visually appealing web interfaces for data visualization and user interaction.
4. Develop an understanding of E&P data formats, integration techniques, and the ability to retrieve and process E&P data within web applications.
5. Apply UI/UX principles to create user-friendly web applications that meet industry standards and best practices.
6. Collaborate with peers to complete a project that combines E&P knowledge with front-end development skills.
7. Acquire practical insights into the oil and gas industry through case studies and real-world examples.
8. Gain the confidence to pursue career opportunities that require a combination of E&P industry knowledge and front-end development skills.

Training program outline

Day 1: Introduction to E&P Value Chain and HTML5 Basics

E&P Value Chain Fundamentals

- Overview of the E&P industry: Key players, trends, and challenges.
- Exploration phase: Geology, seismic surveys, drilling, and well logging.
- Development phase: Reservoir engineering, well design, and production planning.

HTML5 Basics

- Introduction to HTML5: Structure, tags, and elements.
- Building web pages: HTML document structure, headings, paragraphs, and lists.
- Adding images, links, and multimedia content.
- Hands-on exercises: Creating a basic web page using HTML5.

Day 2: CSS3 and Front-end Frameworks

CSS3 Styling and Layouts

- Introduction to CSS3: Syntax, selectors, and properties.
- Styling text, colors, backgrounds, and borders.
- Box model and positioning: Margins, padding, and floats.
- Responsive design: Media queries and flexible layouts.

Front-end Frameworks

- Overview of popular front-end frameworks e.g., React, Angular, or Vue.js.
- Benefits and features of using frameworks in web development.
- Hands-on exercises: Creating a simple web application using a chosen front-end framework.

Day 3: JavaScript Fundamentals and DOM Manipulation

JavaScript Basics

- Introduction to JavaScript: Syntax, variables, and data types.
- Control structures: Conditionals and loops.
- Functions and scope.
- Hands-on exercises: Writing JavaScript functions and basic programs.

DOM Manipulation and Interactivity

- Introduction to the Document Object Model DOM.
- Selecting and manipulating DOM elements using JavaScript.
- Handling user events and creating interactive web content.
- Hands-on exercises: Creating dynamic web elements and interactivity.

Day 4: Advanced Front-end Development and UI/UX Principles

Advanced Front-end Development

- Advanced CSS3 techniques: Transitions, animations, and transforms.
- Introduction to data visualization with libraries like D3.js.
- Hands-on exercises: Creating interactive charts and graphs using D3.js.

UI/UX Principles

- User-centered design principles.
- Accessibility considerations in web development.
- Usability testing and user feedback.
- Hands-on exercises: Improving the user experience of a web application.

Day 5: Integration of E&P Data and Project Work

Integration of E&P Data

- Understanding E&P data formats: Geospatial data, well logs, production data, and APIs.
- Retrieving and processing E&P data in web applications.
- Visualizing E&P data using front-end technologies.
- Hands-on exercises: Integrating E&P data into a web application.

Project Work and Conclusion

- Individual or group project work combining E&P knowledge with front-end development skills.
- Presentation and discussion of project outcomes.
- Recap of key learnings and final Q&A session.

Registration form on the Training Course:
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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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Full Name (Mr / Ms / Dr / Eng): ....
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Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): ....
Position: ....
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Payment Method

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