**Web-Course 2 plan (65 lessons)**

***HTML:***

1. Introduction. More about Web. Environment setup. The structure of HTML document. Resources.

2. Elements and attributes. Headings & paragraphs. Formatting. Comments.

3. Links, images, lists, tables.

4. Block and inline elements. div & span. Class, id and style attributes. Inline and internal styling.

5. Form elements.

6. Audio, video and iframe. Layout and Semantics.

7. Rules of clean code. Simple Project.

***CSS:***

1. Introduction. CSS Selectors, Comments and Cascading.

2. Inheritance, Combinators and Combined Selectors in CSS.

3. Box model, margin collapsing, width, height, max-width, max-height, min-width and min-height.

4. Display. text-align, vertical-align, float, text-decoration, pseudo-classes in CSS.

5. Position, z-index, overflow, background.

6. Styling images(gradient, colors). Styling forms. Units: percent, em, rem.

7. VW and VH. About RWD. Media queries, breakpoints.

8. 2D, 3D transforms. Transitions. Shadow.

9. Animations, fonts.

10. Flexbox.

11. Grid. Best practises. BEM.

12. Practical work.

***Git:***

1. Introduction. Advanetages of VCS. Using examples.

***Practise 1:***

1. Creating template of portfolio website (Section 1).

2. Creating template of portfolio website (Section 2).

3. Competition 1.

***JavaScript:***

**JavaScript Fundamentals:**

1. Introduction. Variables. Data types. Arithmetic operators.

Comparison, Equality and Ternary operators.

2. Functions. Objects and Arrays.

3. Working with Booleans. If else and switch case. String.

4. Loops: for, for of, for in, while and do while. Break and continue.

5. JS Fundamentals practise.

6. Working with Objects. Math and String.

7. Working with Arrays. Array methods.

8. Practise with Math, String, Array and Objets.

9. Factory and Constructor Functions. Primitive and Reference types. More about Functions.

**JavaScript DOM:**

10. What is DOM? Working with Selectors. Manipulating DOM elements. AddEventlistener.

11. Practise working with DOM.

12. Practise working with DOM.

13. Practise working with DOM.

**JavaScript Advanced:**

14. Spread operator and Rest Parameter. Getter and Setter.

15. Try/Catch. Scopes. Let, var and const. this keyword.

16. Synchronous and asynchronous JS. Callback. Promise. async/await.

17. OOP Basics. Solving simple problems in JS.

***Practise 2:***

1. Setting up environment and folder structure for new project.

2. Making HTML/CSS template of new project.

3. Making dynamic parts of new project.

4. Optimizing and Deploying new project to Netlify.

5. Competition 2.

***React.js:***

**React Fundamentals:**

1. General concepts. CRA. Package managers (npm, yarn). Class and functional components.
2. JSX (React.createElement). Props (mapping, passing values and functions from parent to child and from child to parent).
3. Style (styled-components, module.css). Install react libraries (bootstrap).
4. Class components. State, lifecycle methods, functions in class components
5. Working pages. React-router-dom.
6. Getting value from input. Ref. Event.
7. Todoapp in class component

**React FC:**

1. Functional component. About functional component. Hooks (useState, useEffect, useRef).
2. Working with hooks (useReducer, useContext, custom hook).

**React Advanced:**

1. Code-splitting. Memoization. Error Boundary.
2. Redux. React – redux. Redux – thunk.

***Practise 3:***

1. Creating ToDo app with Material – UI (Section 1).
2. Creating ToDo app with Material – UI (Section 2).
3. Creating landing page with Ant-design (Section 1).
4. Creating landing page with Ant-design (Section 2).
5. Creating admin panel for landing page with Ant-design (Section 1).
6. Creating admin panel for landing page with Ant-design (Section 2).
7. Creating admin panel for landing page with Ant-design (Section 3).
8. Competition 3.