**Beginner Level:**

1. **To-Do List App**
   * Create a simple app where users can add, edit, and delete tasks.
   * Use localStorage to save the to-do list data.
2. **Calculator**
   * Build a basic calculator that performs simple arithmetic operations (addition, subtraction, multiplication, and division).
3. **Random Quote Generator**
   * Display a random quote each time a button is clicked. You can store the quotes in an array or fetch them from an API.
4. **Tip Calculator**
   * Create a tool to calculate tips based on the bill amount and selected tip percentage.
5. **Color Guessing Game**
   * A game where users must guess a randomly generated RGB color based on provided color values.
6. **Simple Form Validation**
   * Create a sign-up form that validates user input (e.g., checking for valid email, password length, etc.).
7. **Countdown Timer**
   * Create a countdown timer that counts down to a specific event or date, like New Year’s Eve.
8. **Weather App (API Integration)**
   * Use the OpenWeatherMap API to fetch and display current weather information for a city entered by the user.
9. **Palindrome Checker**
   * Build a small app that checks whether a given word or phrase is a palindrome.
10. **Unit Converter**
    * Create a simple tool to convert between units like kilometers to miles, Celsius to Fahrenheit, etc.

**Intermediate Level:**

1. **Quiz App**
   * Build a multiple-choice quiz app where users can answer questions, and the app keeps score. Store the questions in an external JSON file.
2. **Memory Game**
   * Create a card matching game where users flip cards to find matching pairs. Add a timer and scoring system.
3. **Digital Clock**
   * Build a live digital clock that updates every second and displays the current time.
4. **Movie Search App (API Integration)**
   * Use an API like OMDB to fetch and display movie details when a user searches for a movie by name.
5. **Currency Converter**
   * Create a currency converter app that uses an API like ExchangeRate-API to fetch real-time currency conversion rates.
6. **Drag and Drop Interface**
   * Implement a simple drag-and-drop interface where users can drag items into different boxes or containers.
7. **Image Slider**
   * Build an image slider or carousel that automatically changes images after a set time and allows users to manually navigate between them.
8. **Real-time Chat Application (Using WebSocket)**
   * Implement a basic real-time chat app using WebSockets, where users can join a room and send messages to others in real-time.
9. **Stopwatch**
   * Create a stopwatch app with start, stop, and reset functionality.
10. **Markdown Previewer**
    * Build a tool where users can write in markdown on one side of the screen, and see a preview of the formatted text on the other.
11. **Recipe App**
    * Create an app where users can search for recipes based on ingredients. Use an external API like Spoonacular.
12. **Shopping Cart (Frontend Only)**
    * Develop a basic shopping cart system where users can add/remove items, adjust quantities, and view the total price.
13. **Interactive Quiz Game**
    * A trivia quiz where questions are fetched from an external API (like Open Trivia DB), and users can answer them in real-time.
14. **Expense Tracker**
    * Build a personal finance app where users can add, view, and delete expense items. Include features like income tracking and expense categorization.
15. **Music Player**
    * Create a music player with play, pause, stop, and next/previous song functionality. You can use pre-uploaded audio files for simplicity.
16. **Real-time Search Filter**
    * Build a search interface where users can type keywords and instantly filter through a list of items (e.g., products, books, or movies).
17. **Form Wizard**
    * Develop a multi-step form where users fill out different sections and can navigate back and forth between steps.
18. **Personal Portfolio Website**
    * Create a personal portfolio website with different sections (About Me, Projects, Contact), including responsive design and JavaScript interactivity.
19. **GitHub User Search**
    * Use the GitHub API to build a user search app where you can input a GitHub username and display their profile information and repositories.
20. **Light/Dark Mode Toggle**
    * Create a website that allows users to toggle between light and dark themes. Store the theme preference using localStorage.

**Key Concepts to Focus On:**

* **DOM Manipulation:** Projects like the to-do list, calculator, and quiz app help with understanding how to manipulate the DOM using JavaScript.
* **API Integration:** Projects like the weather app, movie search app, and GitHub user search help with learning how to work with APIs and handle asynchronous data.
* **Event Handling:** Projects like the calculator, color guessing game, and stopwatch help with managing user interaction via events (clicks, key presses, etc.).
* **LocalStorage:** To save data locally on the browser (e.g., storing theme preferences or to-do lists).

Advance level Projects

**1. Real-Time Chat Application (Frontend Only)**

* **Description**: Build a real-time chat interface where users can send and receive messages. Use WebSockets or mock the interface with simulated real-time updates.
* **Skills**: Event listeners, DOM manipulation, WebSocket integration, animations.
* **Bonus**: Add typing indicators and a feature to show when other users are typing.

**2. Interactive Quiz App with Timer and Scoreboard**

* **Description**: Create an interactive quiz app where questions appear one by one, and the user gets limited time to answer each question.
* **Skills**: Event handling, timers, local storage, conditional rendering.
* **Bonus**: Add a scoreboard that saves the user’s score locally or even integrate it with a backend API to store scores.

**3. Expense Tracker with Data Visualization**

* **Description**: Design an expense tracker where users can input their expenses, categorize them, and view their spending data visually with charts.
* **Skills**: Arrays, objects, local storage, data manipulation, libraries (e.g., Chart.js).
* **Bonus**: Include a filtering option to view expenses by category or time range.

**4. Weather App with Geolocation and API Integration**

* **Description**: Build a weather app that fetches weather data based on the user’s geolocation or entered city name using a weather API.
* **Skills**: Fetch API, async/await, geolocation, data handling.
* **Bonus**: Add hourly or weekly weather forecast data and display it with animated weather icons.

**5. Task Manager with Drag and Drop**

* **Description**: Create a task manager where users can add, edit, delete, and drag tasks between different categories (e.g., “To Do,” “In Progress,” “Done”).
* **Skills**: Drag-and-drop API, local storage, event handling, DOM manipulation.
* **Bonus**: Allow users to prioritize tasks by setting deadlines and color-code tasks based on urgency.

**6. Real-Time Markdown Previewer**

* **Description**: Develop a real-time Markdown editor that converts Markdown syntax to HTML on the fly, displaying both input and preview areas side-by-side.
* **Skills**: String manipulation, DOM updates, regular expressions.
* **Bonus**: Implement local storage to save the user’s work automatically.

**7. Pomodoro Timer with Customization**

* **Description**: Create a Pomodoro timer with options to customize work/break intervals. Display a countdown and audio notifications for each interval.
* **Skills**: Timers, event handling, CSS animations, audio playback.
* **Bonus**: Add a visual progress tracker that shows how many Pomodoro cycles have been completed.

**8. Image Gallery with Infinite Scroll and Lightbox**

* **Description**: Build an image gallery that loads more images as the user scrolls down. Clicking an image opens a lightbox view for a larger display.
* **Skills**: Intersection Observer, Fetch API, DOM manipulation.
* **Bonus**: Integrate an image API (e.g., Unsplash API) to load new images dynamically.

**9. Typing Speed Test Application**

* **Description**: Develop a typing speed test where users type a given sentence, and the app calculates their typing speed (WPM) and accuracy.
* **Skills**: Event handling, timers, string manipulation.
* **Bonus**: Add different difficulty levels with various sentences and keep a record of the highest typing speed.

**10. Customizable Data Table with Sorting and Filtering**

* **Description**: Create a dynamic data table where users can sort columns and filter data based on different criteria.
* **Skills**: Array methods, event handling, DOM updates.
* **Bonus**: Add pagination and CSV export functionality for the filtered data.

**11. Recipe Finder with Ingredient Search**

* **Description**: Design a recipe finder where users can input ingredients, and the app fetches recipes that use those ingredients from a recipe API.
* **Skills**: Fetch API, async/await, DOM manipulation.
* **Bonus**: Save favorite recipes in local storage, allowing users to create a personal recipe collection.

**12. Virtual Keyboard with Keypress Animations**

* **Description**: Build a virtual keyboard that highlights keys as the user types, with options to switch between different keyboard layouts.
* **Skills**: Event handling, DOM manipulation, CSS animations.
* **Bonus**: Add a typing sound effect and a dark mode for the keyboard.

**13. E-commerce Shopping Cart with Local Storage**

* **Description**: Create an e-commerce shopping cart where users can add, edit, and delete items, with the cart state saved in local storage.
* **Skills**: Local storage, event handling, array manipulation.
* **Bonus**: Add item quantities and calculate total price dynamically as items are added or removed.

**14. Audio Visualizer**

* **Description**: Build an audio visualizer that creates animations based on audio frequencies from an uploaded file.
* **Skills**: Web Audio API, canvas animations, DOM manipulation.
* **Bonus**: Allow the user to adjust the visualizer style, like bars or waves.

**15. Random Quote Generator with Voice-to-Text**

* **Description**: Create a random quote generator where users can get a new quote and also have the app read it aloud using the SpeechSynthesis API.
* **Skills**: Fetch API, SpeechSynthesis API, DOM manipulation.
* **Bonus**: Add a “Copy to Clipboard” button to copy the quote text easily.

**16. Image Editor with Filters**

* **Description**: Build a basic image editor that allows users to upload an image and apply various filters (brightness, contrast, grayscale, etc.).
* **Skills**: File API, canvas manipulation, CSS filters.
* **Bonus**: Add undo and redo functionality for filter changes.

**17. Real-Time Currency Converter with API**

* **Description**: Create a currency converter that fetches real-time exchange rates from an API and allows users to convert between different currencies.
* **Skills**: Fetch API, event handling, data manipulation.
* **Bonus**: Include a history feature to display past conversion rates.

**18. Multi-Step Form with Validation and Progress Bar**

* **Description**: Develop a multi-step form that guides users through steps, with real-time validation and a progress bar.
* **Skills**: Form validation, event handling, DOM manipulation.
* **Bonus**: Save form data in local storage so users can pick up where they left off.

**19. Customizable Music Player**

* **Description**: Build a music player with play, pause, next, and previous functionality, along with a custom progress bar and volume control.
* **Skills**: Audio API, event handling, DOM manipulation.
* **Bonus**: Create playlists and allow users to shuffle and loop songs.

**20. Personal Digital Assistant with Voice Recognition**

* **Description**: Develop a digital assistant that listens to user commands (e.g., “What’s the weather?” or “Set a reminder”) and performs basic actions.
* **Skills**: SpeechRecognition API, event handling, Fetch API.
* **Bonus**: Add a response system where the assistant “speaks” back to the user using SpeechSynthesis API.

**21. Habit Tracker with Calendar and Streak Counter**

* **Description**: Build a habit tracker that allows users to set goals and log daily habits. Use a calendar layout to display progress visually, highlighting days where habits were completed and showing streak counts.
* **Skills**: Date manipulation, local storage, DOM manipulation, CSS Grid.
* **Bonus**: Add a feature to display monthly or weekly summaries and analyze habit trends over time.

**22. Real-Time Collaboration Board (e.g., Kanban)**

* **Description**: Create a collaborative Kanban-style board where users can add, edit, and move tasks between columns. Include real-time synchronization with a backend (or simulate it with local storage if building frontend only) so multiple users can view updates instantly.
* **Skills**: Drag-and-drop API, WebSockets (or local storage simulation), DOM manipulation, real-time data handling.
* **Bonus**: Implement user roles (e.g., admin, viewer) and add a comment section for each task to enable team discussions.