

A PROJECT REPORT ON TYPE-GO MULTIPLAYER

MINOR PROJECT REPORT

SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR

THE AWARD OF THE DEGREE OF

BACHELOR OF TECHNOLOGY

Information Technology



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Abstract

Type-go helps to improve the typing speed of a person. It has been designed to provide a better typing experience with your friends . Players can create or join the rooms for better interaction with friends, and the results of typing speed are broadcast to the room users. It is very precious thing for those who are new to use computer and our project helps in improving their typing speed. Type go help you type with your friend and help in being competitive. as long as you type it will give you Signal where you typed wrong and give you score when you finished.

ACKNOWLEDGEMENT

We are highly grateful to Dr. Sehajpal Singh, Principal, Guru Nanak Dev Engineering College (GNDEC), Ludhiana, for providing this opportunity to carry out the minor project work. The constant guidance and encouragement received from Prof. Jagdeep Singh, IT Department, GNDEC Ludhiana has been of great help in carrying out the project work and is acknowledged with reverential thanks. We would like to express a deep sense of gratitude and thanks profusely to Prof. Jagdeep Singh without her wise counsel and able guidance, it would have been impossible to complete the project in this manner. We express gratitude to other faculty members of the Information Technology Department of GNDEC for their intellectual support throughout the course of this work. Finally, we are indebted to all whosoever have contributed in this report work.

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1 Introduction

1.1 Introduction to Project

The project aims to develop a Typing speed game .Type-go helps to improve the typing speed of a person It has been designed to provide a better typing experience with your friends . Users can interact with the help of room. A private room id will be created for the interaction. Type go help you type with your friend and help in being competitive. as long as you type it will give you Signal where you typed wrong and give you score when you finished.

1.2 Project Category (Internet based, Application or System Development, Research based, Industry Automation, Network or System Administration)

It is an internet based project . its a little game or an application which help in improving the typing speed as per industry demand.

1.3 Objectives

This software aims to achieve these objectives: -

Help the learners to enhance their learning process by developing their typing skills.

- Develop typing speed
- Recognize position of the keys to use all fingers
- Identify the location of different keys and different letters
- Identify the location of different keys and different letters
- To practice typing with all fingers

1.4 Unique Features of the System

- Provide information and instructions for using the program
- Display scores
- Double your typing speed
- Save valuable work time
- Focus on your time and ideas
- be confident with computers

2 Requirement Analysis and System Specification

2.1 Feasibility Study (Technical, Economical, Operational

The TypeGo project is a type of application with a user-friendly interface that help in communication with the help of room id and connect the users. TypeGo its not just a game its also an application used to improve typing skills and with help of little competitiveness. 1. In technical aspect we have all the software and hardware required for this project. All the technologies required for this project is Javascript and Node.js loaded in the developer's system 2. In economical aspects all the software's required for the project are easily accessible free of cost and legally from the internet 3. In operational aspect , It is practically possible to develop this project and is operationally feasible

2.2 Software Requirement Specification Document which must include the following: (Data Requirement, Functional Requirement, Performance Requirement, Dependability Requirement, Maintainability requirement, Security Requirement, Look and feel requirement

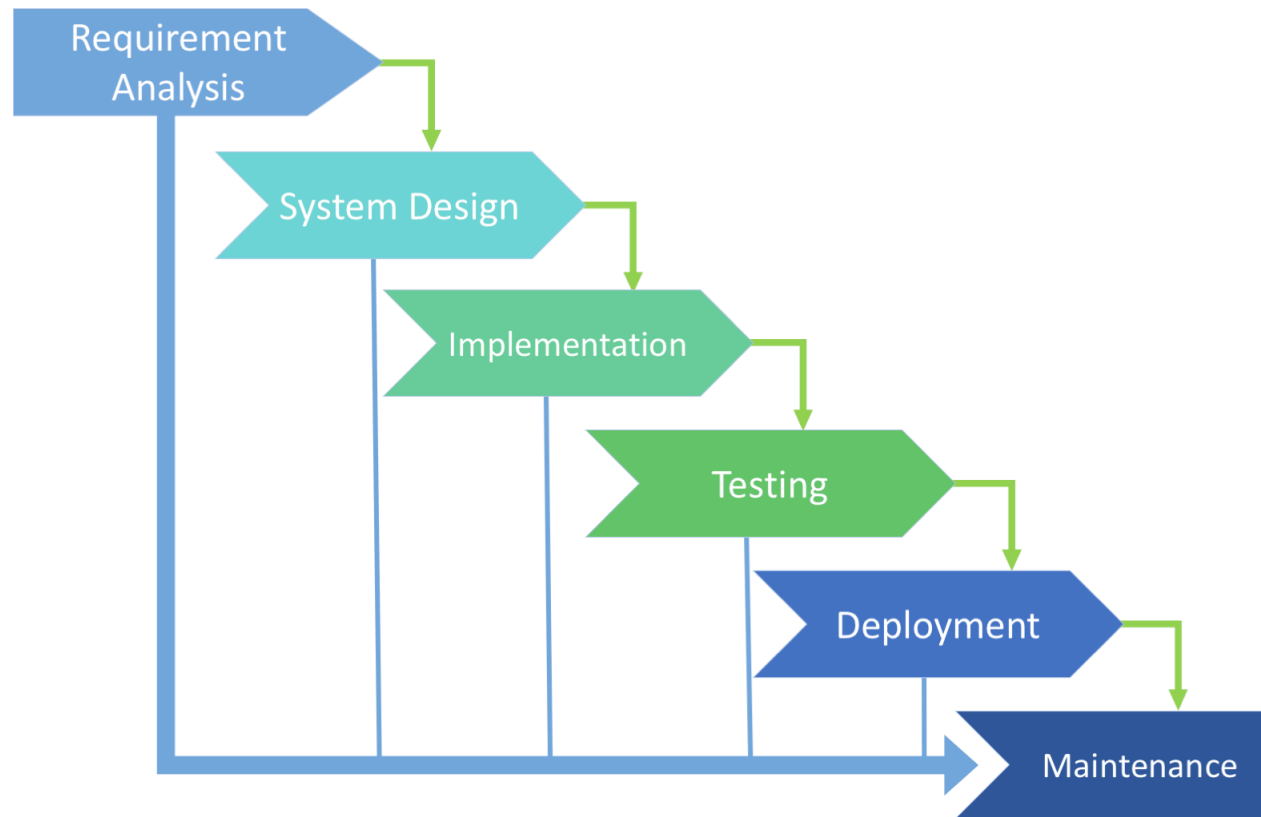
1. HTML
2. CSS
3. JavaScript
4. Node.js
5. express.js
6. socket.io
7. Visual Studio

2.3 Expected hurdles

When we fetch quotes from API, some-time it gave unexpected symbols which are not present in our key-board, which make game more challenging and hard to finish.

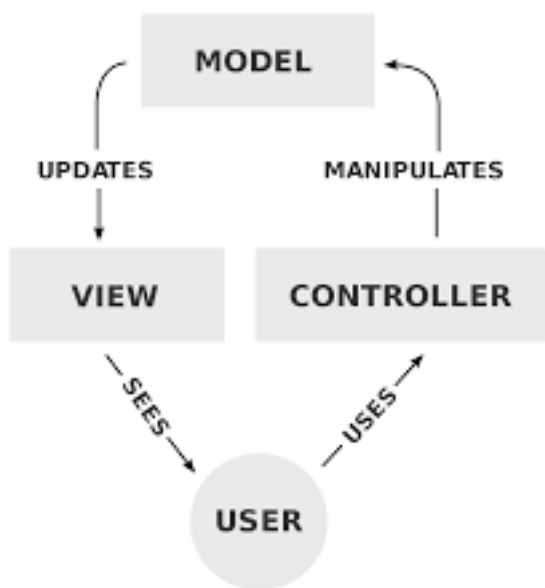
2.4 SDLC model to be used

We used a concept called the systems development life cycle (SDLC) to plan and manage the system development process. The SDLC model contains the following steps: System Planning. System Analysis. System Design. System Implementation. System Operation, Support, and Security.



3 System Design

3.1 Design Approach (Function oriented or Object oriented)



3.2 Detail Design

MVC stands for Model, View, and Controller. MVC separates an application into three components - Model, View, and Controller.

3.2.1 Model:

Model represents the shape of the data. A class in C is used to describe a model. Model objects store data retrieved from the database.

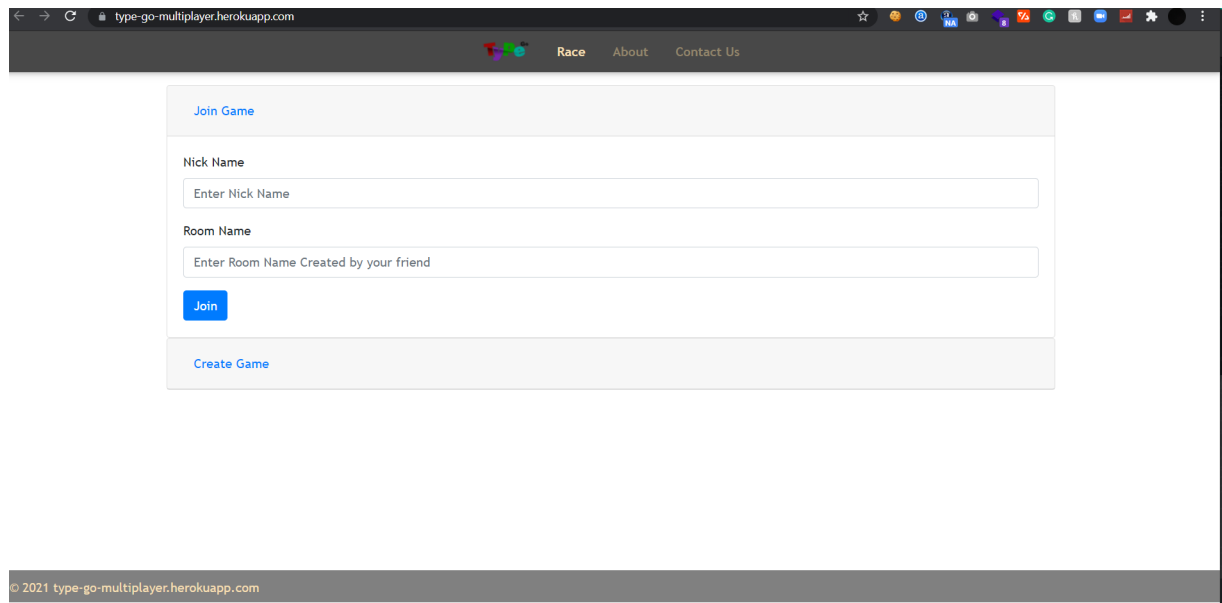
3.2.2 View:

View in MVC is a user interface. View display model data to the user and also enables them to modify them. View in ASP.NET MVC is HTML, CSS, and some special syntax (Razor syntax) that makes it easy to communicate with the model and the controller.

3.2.3 Controller:

The controller handles the user request. Typically, the user uses the view and raises an HTTP request, which will be handled by the controller. The controller processes the request and returns the appropriate view as a response.

3.3 User Interface Design



3.4 Methodology

The main study is done on socket.io which is used to two way communication in real time.

4 Implementation, Testing, and Maintenance

4.1 Introduction to Languages, IDE's, Tools and Technologies used for Implementation

4.1.1 Introduction to languages

JavaScript is a scripting or programming language that allows you to implement complex features on web pages â every time a web page does more than just sit there and display static information for you to look at â displaying timely content updates, interactive maps, animated 2D/3D graphics, scrolling video jukeboxes, etc. â you can bet that JavaScript is probably involved. It is the third layer of the layer cake of standard web technologies, two of which (HTML and CSS) we have covered in much more detail in other parts of the Learning Area. HTML is the markup language that we use to structure and give meaning to our web content, for example defining paragraphs, headings, and data tables, or embedding images and videos in the page. CSS is a language of style rules that we use to apply styling to our HTML content, for example setting background colors and fonts, and laying out our content in multiple columns.

Node.js is an open-source, cross-platform, back-end JavaScript runtime environment that runs on the V8 engine and executes JavaScript code outside a web browser. Node.js lets developers use JavaScript to write command line tools and for server-side scriptingârunning scripts server-side to produce dynamic web page content before the page is sent to the user's web browser. Consequently, Node.js represents a "JavaScript everywhere" paradigm,[6] unifying web-application development around a single programming language, rather than different languages for server-side and client-side scripts.

Though .js is the standard filename extension for JavaScript code, the name "Node.js" doesn't refer to a particular file in this context and is merely the name of the product. Node.js has an event-driven architecture capable of asynchronous I/O. These design choices aim to optimize throughput and scalability in web applications with many input/output operations, as well as for real-time Web applications (e.g., real-time communication programs and browser games).[7]

4.1.2 IDE'S

Visual Studio Code is a source-code editor made by Microsoft for Windows, Linux and mac-OS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. In Visual Studio code users can change the theme, keyboard shortcuts, preferences, and install extensions that add additional functionality as their requirement and choice . Visual Studio Code is a source-code editor that can be used with a variety of programming languages, including Java, JavaScript, Go, Node.js, Python and C++. Visual Studio Code includes multiple extensions for FTP, allowing the software to be used as a free alternative for web development. Code can be synced between the editor and the server,

without downloading any extra software. Visual Studio Code allows users to set the code page in which the active document is saved, the newline character, and the programming language of the active document. This allows it to be used on any platform, in any locale, and for any given programming language.

Github:- GitHub, is a provider of Internet hosting for software development and version control using Git. It offers the distributed version control and source code management functionality of Git, plus its own features. It provides access control and several collaboration features such as bug tracking, feature requests, task management, continuous integration and wikis for every project. GitHub offers its basic services free of charge. Its more advanced professional and enterprise services are commercial.[6] Free GitHub accounts are commonly used to host open-source projects.[we have also collaborate for github in our project time and use some source code files at the implementation time.

4.1.3 Coding standards of Language used

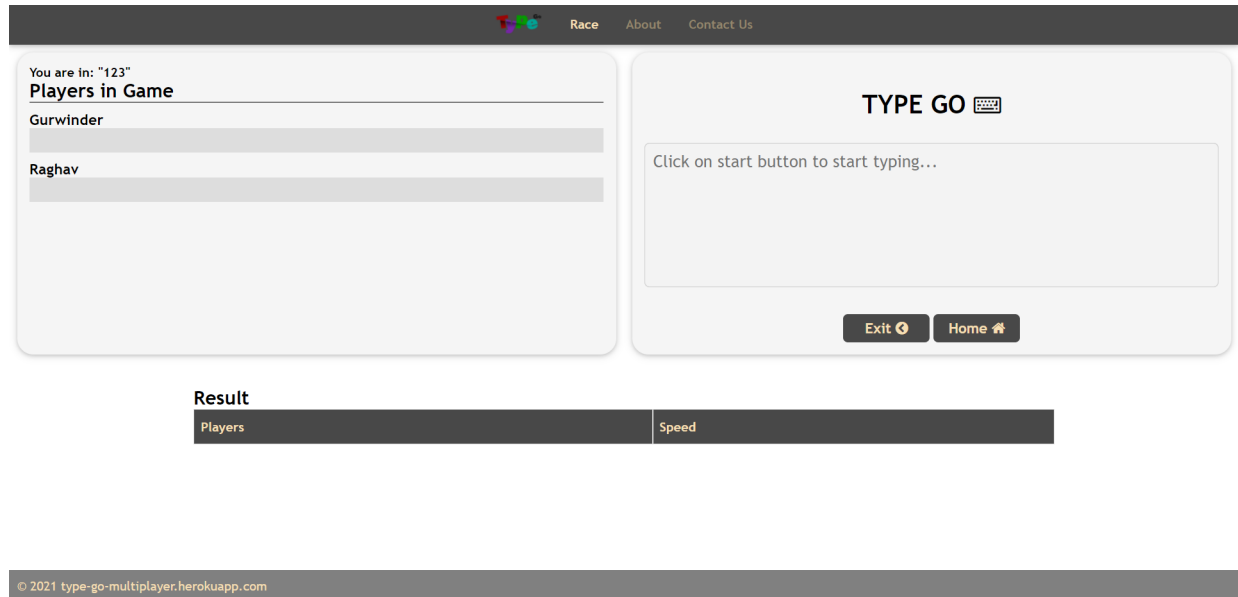
Coding standards can be understood as a series of procedures for a specific programming language that determines the programming style, procedures, methods for various aspects. In this TypeScript project we are using javascript.

4.2 Testing Techniques and Test Plans

Functional vs. Non-functional Testing - In this testing we just test if our project is functional/running or not. Unit Testing - Unit testing is the first level of testing and is often performed by the developers themselves. It is the process of ensuring individual components of a piece of software at the code level are functional and work as they were designed to. In our Project we test each step if it is working or not and remove any errors that occur. Performance Testing - Performance testing is a non-functional testing technique used to determine how an application will behave under various conditions. In this we make sure that our project is running smoothly and not lagging the browser. Usability Testing - Usability testing is a testing method that measures an application's ease-of-use from the end-user perspective.

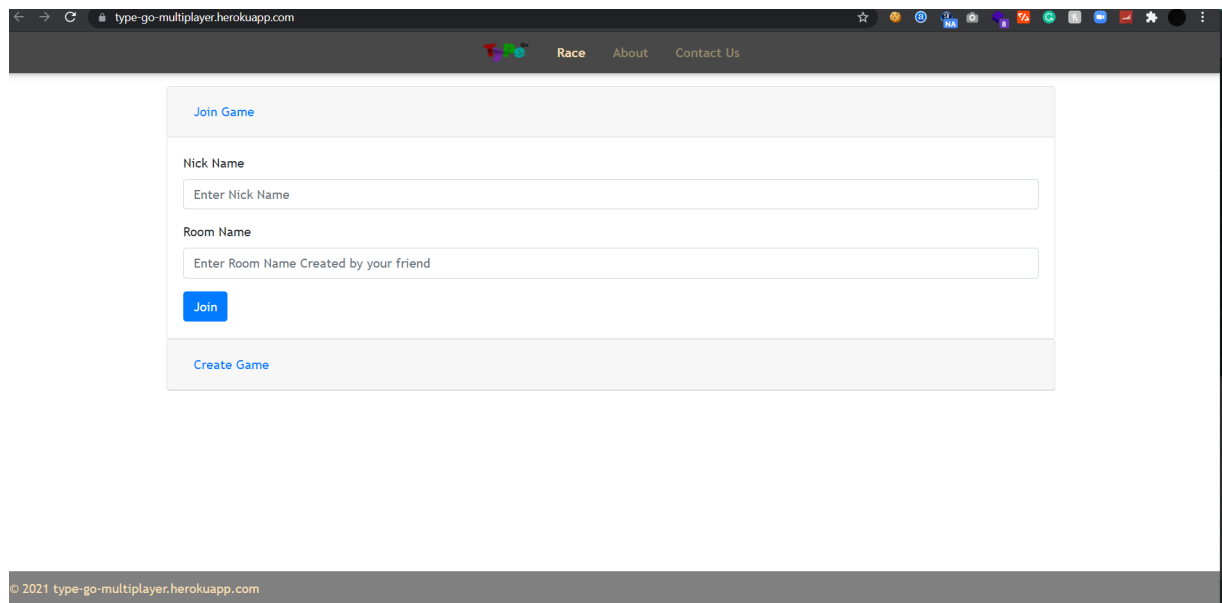
5 Results and Discussions

5.1 User Interface Representation (of Respective Project)



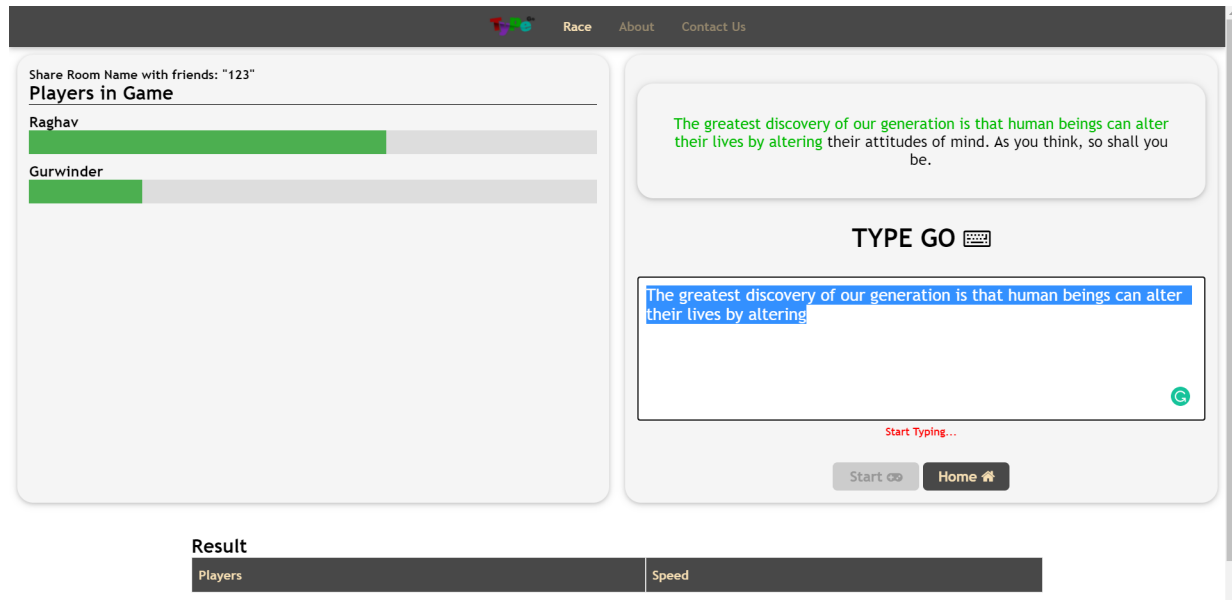
5.2 Snapshots of system with brief detail of each

5.2.1 Front page



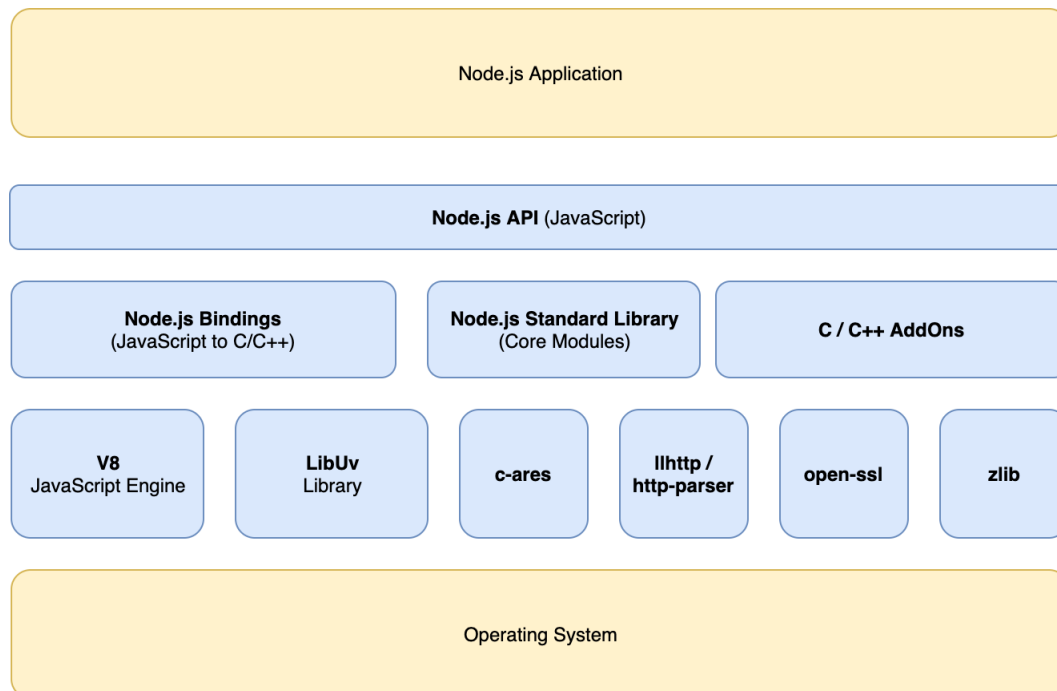
- It is the front page or the home page of the application it is used to enter in the game with or creating room.

5.2.2 Game page



- It is the working area of the application showing the timely updation of the result.

5.3 Back Ends Representation



6 Conclusion

This Project is based upon web application so anyone can access it build up typing speed with their fellows without downloading anything.

7 Future Scope

It can be further extended to a coding competition platform.

References/Bibliography

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<https://expressjs.com>

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