

● Let's Build a WhatsApp Chat App with React JS, Node JS and Socket.io



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Realtime output

S

Anam Fatime
4231256644

Search or start new chat

C

Chris Ronaldo
Happy to see you again. What can we do for you today?

8:21 pm

C

Charles Renault
What can businesses do to succeed?

8:22 pm

S




Shaguh Sharma
Why do you think some businesses fail?

8:22 pm

A

Anam Fatime
What are some cultural differences between your country and foreign countries your company does business with?

8:24 pm

 ↔  ↔ 

A

Anam Fatime

What have you had to negotiate for in your life?
(Examples: House, car, items at a bazaar) 8:23 pm

How good are you at negotiating? 8:23 pm


Do you think men or women are better at negotiations? Why? 8:23 pm



What are some cultural differences between your country and foreign countries your company does business with? 8:24 pm

"Business is a combination of war and sport." Do you agree? Why/why not? 8:22 pm


What are some good negotiation tactics? 8:23 pm

What was the worst interview you have ever had? 8:24 pm





Type your message here.....

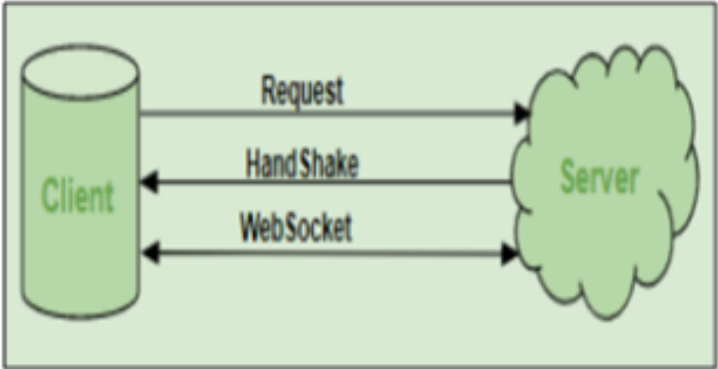
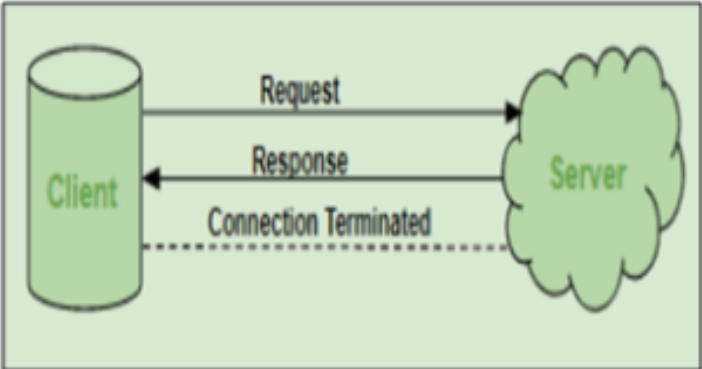


Basics of Communication Protocols

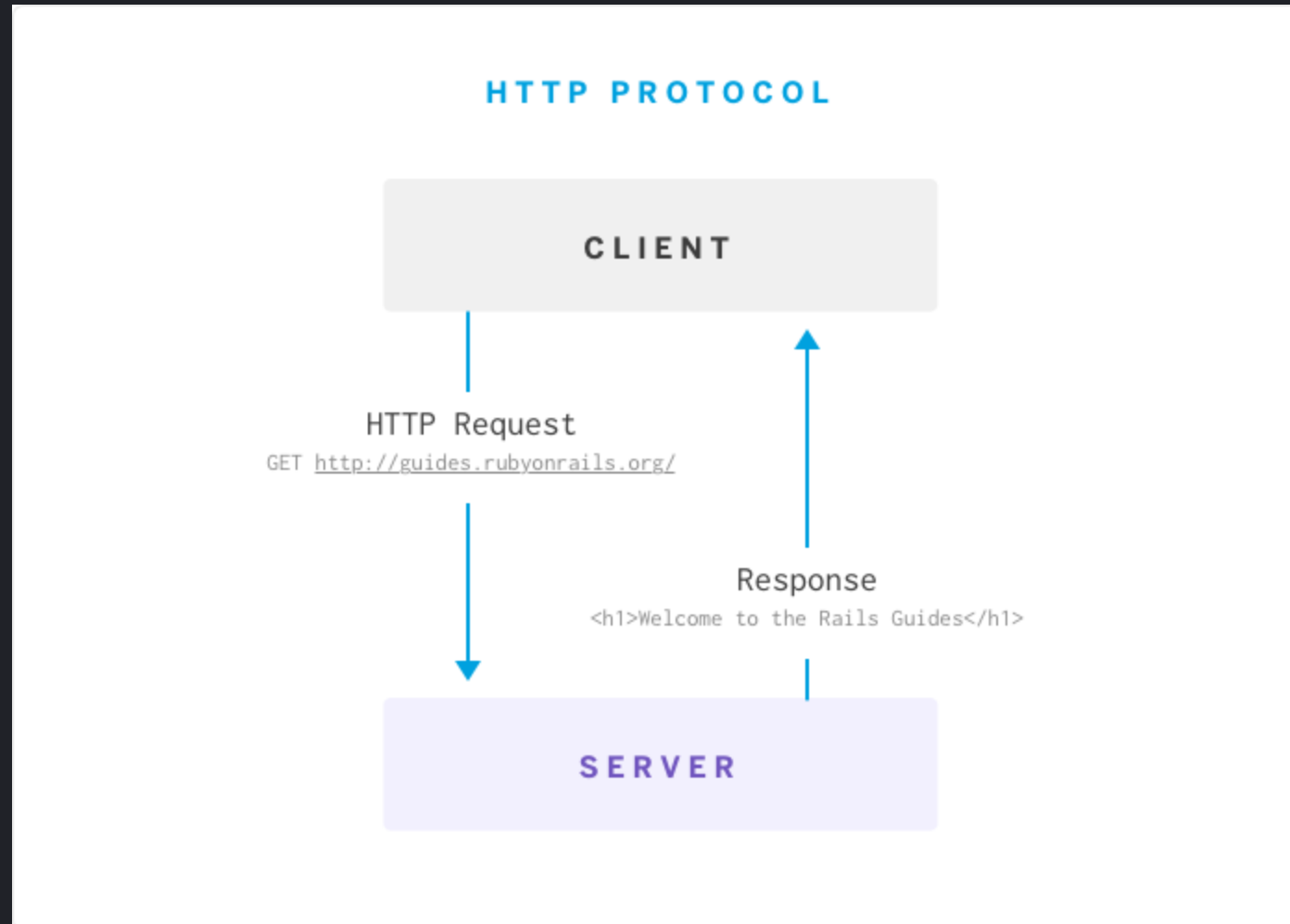
- Http protocol
- Websocket protocol



Http vs WebSocket Protocol

Sr. No.	WebSocket	HTTP
1	Bidirectional WebSockets can send data from the client to the server or vice versa.	Unidirectional The user request will be sent in the form of HTTP request to the client and after receiving this request only the server will respond.
2	Full-duplex Client and server can talk to each other independently at the same time.	Half-duplex Traffic flows only in one direction at a time
3	 <p>The diagram shows a Client (cylinder) and a Server (cloud) connected by three arrows. The first arrow points from Client to Server and is labeled 'Request'. The second arrow points from Server to Client and is labeled 'Hand Shake'. The third arrow points from Client to Server and is labeled 'WebSocket'.</p> <p>Fig 1.1 WebSocket Connection</p>	 <p>The diagram shows a Client (cylinder) and a Server (cloud) connected by three arrows. The first arrow points from Client to Server and is labeled 'Request'. The second arrow points from Server to Client and is labeled 'Response'. The third arrow is a dashed line pointing from Client to Server and is labeled 'Connection Terminated'.</p> <p>Fig 1.2 HTTP Connection</p>

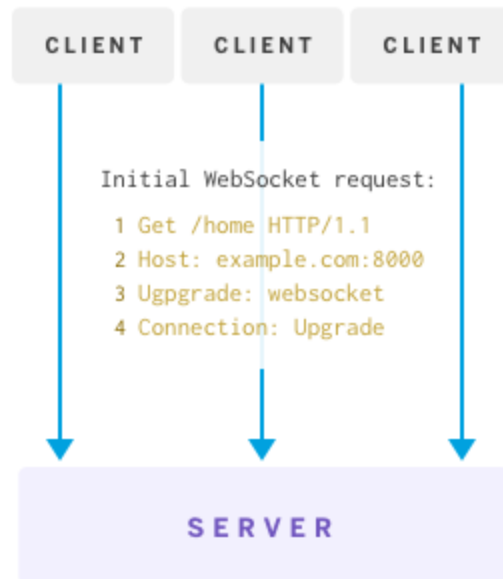
Http Protocol



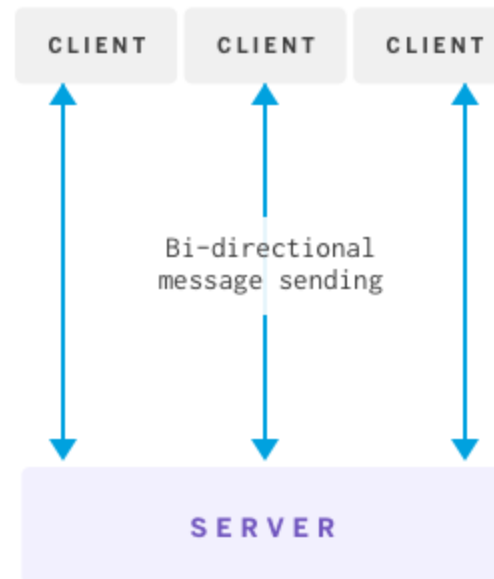
WebSocket Protocol

WEBSOCKET PROTOCOL

Step 1: A Request to initiate a WebSocket connection is sent to the server, from any number of clients



Step 2: Open and maintain WebSocket connections between multiple clients and a single server



Realtime Http Use cases

1. CRUD Operation

- Create, Read, Update and Delete



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Realtime Websocket Use cases

1. Financial data streaming
 - *Trading apps like Zerodha, bitmex etc...*
2. Chat services
 - *Messaging apps like Whatsapp, Messenger etc...*
3. Multiplayer games
 - *Gaming apps like Pubg, Free fire etc...*



Now you know the clear idea about which protocol is used to build this whatsapp chat app

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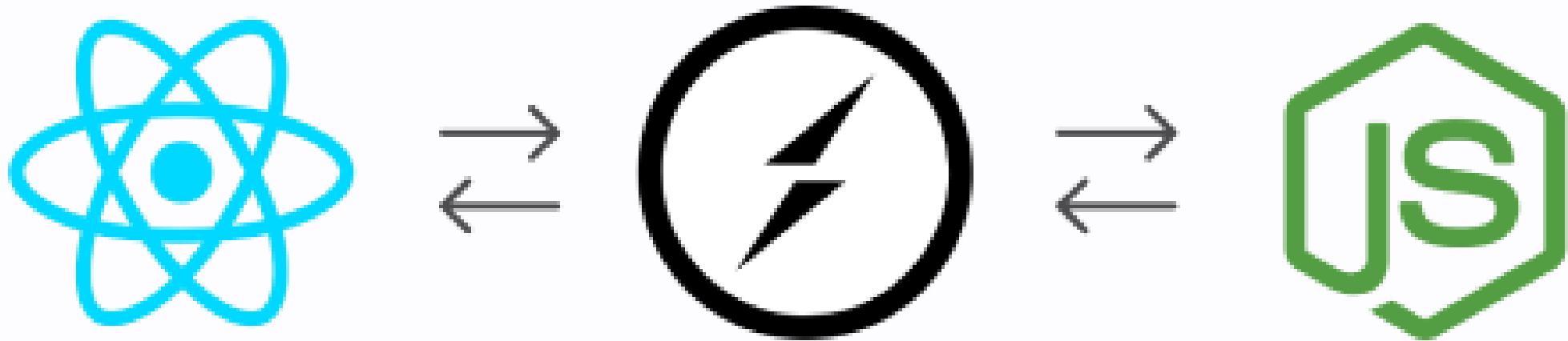
Now you have a question which stack(programming language) is used to build this application very quickly, easily and efficiently.



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Stacks used in this application



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Prerequisite software

- Install Node Js
- Install NPX - NPM Package Runner (x probably stands for eXecute)
- Install NPM - Node Package Manager



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Prerequisite language

- Basics of HTML, CSS and Javascript
- Basics of React Js setup
 - ***npx create-react-app whatsapp-chat-app***
- Basics of Node Js
 - ***npm init***

Folder Structure

```

✓ WhatsappChatApp
  ✓ Client
    > node_modules
    > public
    > src
    ◆ .gitignore
    {} package-lock.json
    {} package.json
    ⓘ README.md
  ✓ Server
    > node_modules
    ◆ .gitignore
    {} package.json
  JS server.js
```

1. Client / Frontend

- *React UI Components*

2. Server / Backend

- *Node Js Business Logics*



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Interview Questions

- Websocket, http
- Full duplex, Half duplex
- NPM, NPX
- Node Js, React Js, Socket.IO
- Bidirectional, Unidirectional

Let's move to live coding.....



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