Mobile Application Development
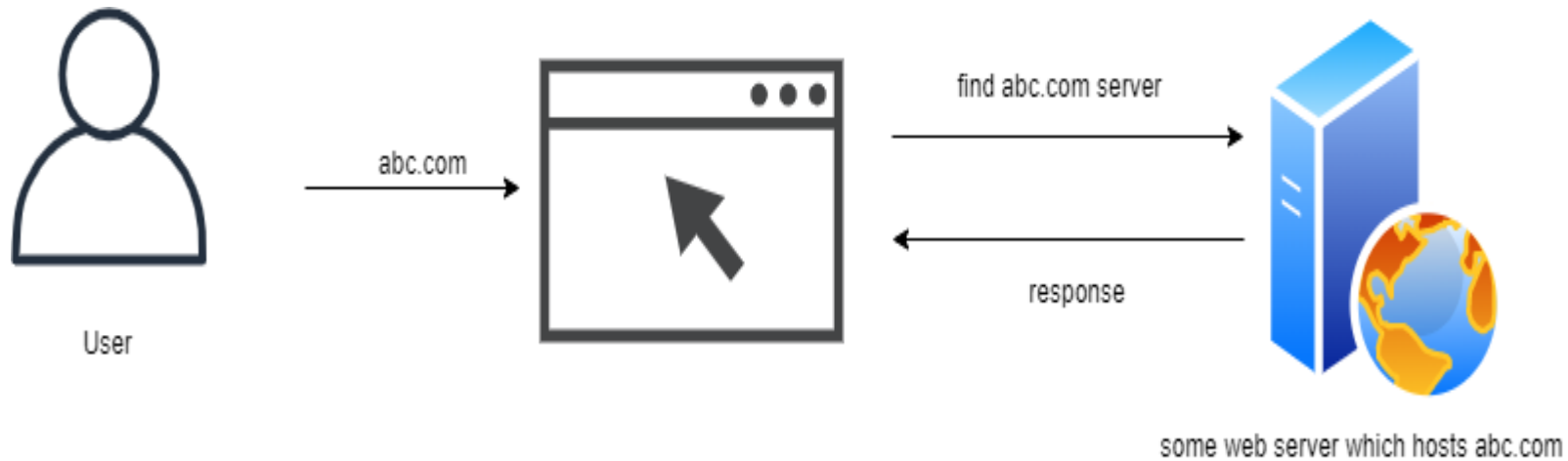
SEMESTER PROJECT GUIDELINE

What does Full-stack mean ?

- Full-stack includes Front-end, Back-end, Mobile Development and Deployment. All in one.

- In this semester project, this is our aim.

- We are already familiar with TypeScript, JavaScript and Angular. That is all we need to build a

 full stack solution.

Let talk a little about How Apps/Website work?

How most mobile apps work?

- Most mobile apps are often linked to a web server.

- The web server could be any server written in any language e.g. PHP, C#, Java, **Node.js**, Golang,

  Rust, Elixir, C++.

- The mobile app usually communicates with the web server / backend using REST API.

How most mobile apps work?

- REST API is a protocol that allows us to communicate with a server using HTTP.

- REST API is basically GET, PUT, POST, DELETE http methods.

- In previous class, we used REST apis. In one example, we displayed Quotes, and in another, we used Github's REST api and displayed list of repositories.

How most mobile apps work?

```
export class GithubPage implements OnInit {
  loading = false;
  customLoading;
  repos = [];
  constructor(
    private datalistingService: DatalistingService,
    private loadingController: LoadingController
  ) {}
  githubname;
  ngOnInit() {}
  search() {
    this.getGithubRepos(this.githubname);
  }


  getGithubRepos(name) {
    this.loading = true;
    this.repos.length = 0;
    console.log('get');
    this.datalistingService.getGithubRepos(name).subscribe(
      data => {
        this.loading = false;
        this.repos = data;
        console.log('data', data);
      },
      error => {
        this.loading = false;
        this.repos.length = 0;
        console.log('error', error);
      }
    );
  }
```

github

Search by Github Name
alamgirqazi

SEARCH

https://api.github.com/repos/alamgirqazi/alam

★ 0
alam Node CLI app

https://api.github.com/repos/alamgirqazi/alamgir-ionic

★ 0
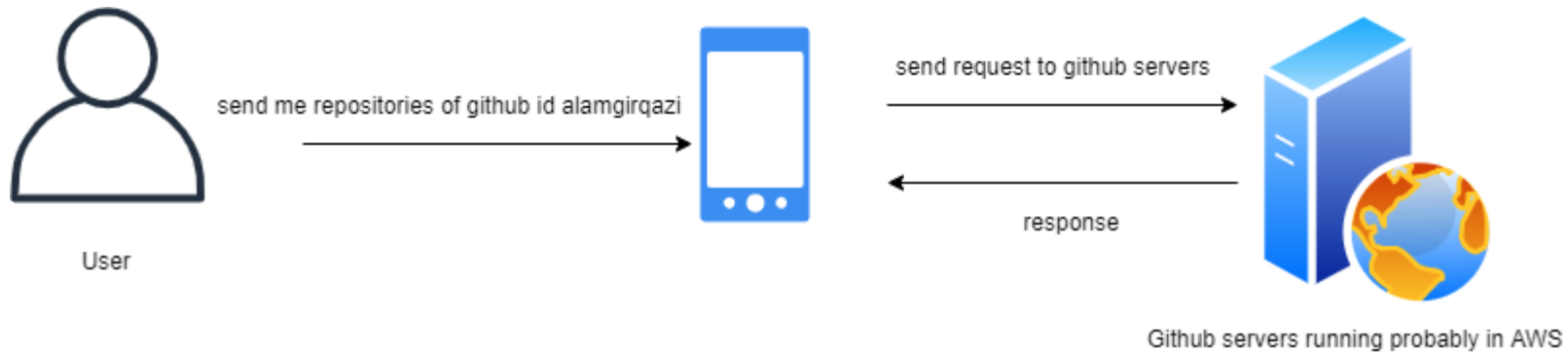a simple ionic app that displays my name, city of birth/residence and interests.

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  used Github's REST api and displayed list of repositories.

Whats happening here?

send me repositories of github id alamgirqazi

User

send request to github servers

response

Github servers running probably in AWS

▪ We sent this HTTP request https://api.github.com/users/alamgirqazi/repos

So how can we set this up ?

In order to set this up on our own, we will need

- a Mobile App (Ionic, Angular).

- a web server (Node.js).

- A Web App using Angular (entirely optional)

This how most companies build their applications. All this tech using just JavaScript language.

Full Stack Solution

Cross platorm mobile app built in Ionic

Node.js Server

Database MongoDB / postgresql

Web App built using Angular