Topic 1: Introduction

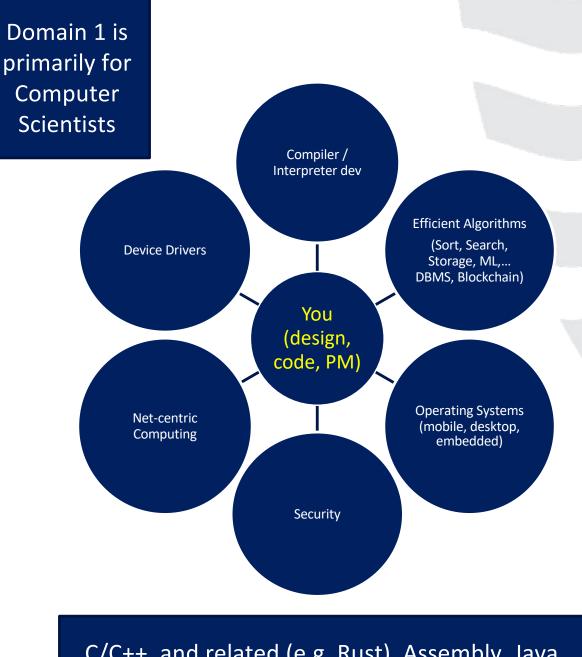
- An overview of where this course fits in the life of a Computer Science major.
- An overview of JavaScript: evolution strengths, weaknesses and why the use in this course.
- Get started with basic development tools for the course
 - VS Code IDE
 - Remix
 - Docker
 - Git

...Topic 1: Introduction

An overview of where this course fits in the life of a Computer Science major.

...Topic 1: Introduction

CS Problem Domain 1: Mainly computational systems facing



C/C++, and related (e.g. Rust), Assembly, Java

...Topic 1: Introduction

CS Problem
Domain 2:
Mainly user
facing and
applied fields



JavaScript + any of Python, Java, C#, Go, Rust and related.

Getting started with basic development tools for the course

VS Code IDE Remix Docker Git

- VS Code IDE download
 - https://code.visualstudio.com/download
- Docker download
 - https://www.docker.com/products/dockerdesktop/
- Git for Windows download
 - https://git-scm.com/download/win
- NodeJS
 - https://nodejs.org/en/download/
- Expo Snack (online React Native test environment)
 - https://snack.expo.dev/
- Remix IDE (an online IDE)
 - https://remix.ethereum.org/
- Hardhat
 - https://hardhat.org/

Getting started with basic development tools for the course

VS Code IDE Remix Docker Git

- Experience docker with dockercompose
 - Create a lesson project:
 - 1. Create a directory named CSC202-2022set
 - 2. Open folder in VS Code
 - 3. Add two files named
 - docker-compose.yml
 - csc2022.env

Getting started with basic development tools for the course

VS Code IDE Remix Docker Git • 4. Add the following content to *docker-compose.yml*:

```
version: '3'
services:
    database:
        container_name: postgres-csc2022
        image: postgres:latest
        ports:
             - "5433:5432"
        volumes:
              - /Users/piusonobhayedo/data/postgres/csc2022:/data/postgres
        env_file:
              - csc2022.env
```

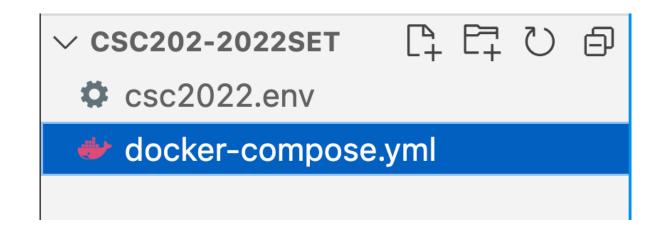
Reference for docker-compose.yml syntax:
https://docs.docker.com/compose/compose-file/

Getting started with basic development tools for the course

VS Code IDE Remix Docker Git • 5. Add the following content to *csc2022.env*:

POSTGRES_DB=csc2022
POSTGRES_USER=postgres
POSTGRES_PASSWORD=postgres

Project tree:



Getting started with basic development tools for the course

VS Code IDE Remix Docker Git

- Test-run docker-compose on terminal, from the trial project directory *CSC202-2022set* by running the command:
 - docker-compose up
- You should see the startup feedback on terminal

```
gres-csc2020 | 2022-03-23 11:58:55.563 UTC [1] LOG: database system is ready to accept connections
oostgres-csc2020 | 2022-03-23 11:58:55.544 UTC [27] LOG: redo is not required
oostgres-csc2020 | 2022-03-23 11:58:55.544 UTC [27] LOG: invalid record length at 0/15C7620: wanted 24,
omatic recovery in progress
oostgres-csc2020 | 2022-03-23 11:58:55.542 UTC [27] LOG:
                                                             database system was not properly shut down; au
at 2022-03-23 11:49:48 UTC
  stgres-csc2020 | 2022-03-23 11:58:55.302 UTC [27] LOG: database system was interrupted; last known up
                    2022-03-23 11:58:55.294 UTC [1] LOG: listening on Unix socket "/var/run/postgresql/.s
                   2022-03-23 11:58:55.288 UTC [1] LOG: listening on IPv6 address "::", port 5432
  on x86_64-pc-linux-gnu, compiled by gcc (Debian 8.3.0-6) 8.3.0, 64-bit
stgres-csc2020 | 2022-03-23 11:58:55.288 UTC [1] LOG: listening on IPv4 address "0.0.0.0", port 5432
                   2022-03-23 11:58:55.288 UTC [1] LOG: starting PostgreSQL 13.3 (Debian 13.3-1.pgdg100-
                   PostgreSQL Database directory appears to contain a database; Skipping initialization
Attaching to postgres-csc2020
Starting postgres-csc2020 ... done
base) piusonobhayedo@Piuss-MacBook-Pro-2 CSC202-2020set % docker-compose up
```

More explanations in class!

Getting started
with basic
development
tools for the
course

VS Code IDE Remix Docker Git

- Before we use our lesson project directory for JavaScript, Git initialize it by running on terminal, from the directory:
 git init
- To add a remote directory on GitHub:
 - 1. Login to your GitHub account online
 - 2. Create a new repository named
 - 3. Copy the URL of the remote directory for local association
 - 4. Associate with the following command, on local terminal [PLEASE use your own repository address and not mine below]:

git remote add origin https://github.com/piosystems/csc202-2022set.git