<center>**Project requirements document**</center>

Project title: City Advisor

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    0. Document versions

    v2.0

1. Project components

To carry out the project for creating the transport application, we decided to divide the work into different parts, namely:

- The **Back end** which will be essentially built by using java programming language, including all the essential functionalities such as spring, maven, hibernate, Apache Tomcat, PostgreSQL/MySQL
- The **Front-End** which will be built using one of the JavaScript technologies known as Reactjs with the new language features like JavaScript ES-6, Webpack for React.
- The styling part for the Front-End will be provided using new technology commonly called in IT jargon **SASS** (**Syntactically Awesome Style Sheets**) including advanced CSS features such as flexbox & grid.

2. Project boundaries

The main goal of the application will be to assist the user who wishes to move from one place to another place by providing appropriate information without the need for long and tiring search through the internet.

The application will provide the user the following information:

- Buses and tram lines, diagrams, schedules

- List of transport operators

- Information on the ticket price as well as on the method of payment

- Local customs, do/ don'ts.

The site for every city will consist of exchangeable components that will be presented to the user only if the appropriate information will be available in the system. Moreover, the user will be able to customize his view and see only elements that are of his interest.

3. Functional requirements list

    a. Users

We will have different types of users:

- User - the one using the application to get different pieces of information like lines, schedules, diagrams, etc
- Admin - the one who is administering the system like the update, delete, insert, etc.

    b. Product Description

The user chooses whether he wants to see information about the city transport of transport around the

city.

    City transport - where all information. Divided into "components" responsible for different information.
- Bus / tram lines numbers,

- List of local operators with links to their websites
- Travel planners available for given city
- Information about vehicles and how the stops are marked
- Information about ticket prices / validation / buying
- Information about Private transport like taxi etc….
- User can filter components, maximize, or close them

    Transport around the City:
- Allows the user to filter the destinations by name/type of transport
- Provide (in tables) information and links to operators that provide transport to a given location (and prices - if possible)

Admin Panel: where you can log in as an administrator and, add/delete users, add delete cities, edit information from the database.

4. Nonfunctional requirements list

- Bus / tram schedules(timetables)
- Public Transport diagram / map

- The platform will not generate tickets for the clients.

5. Project acceptance criteria for semester two

- Bus / tram lines numbers,

- List of local operators with links to their websites
- Travel planners available for given city
- Information about vehicles and how the stops are marked
- Information about ticket prices / validation / buying
- Information about Private transport like taxi etc….
    Provide (in tables) information and links to operators that provide transport to a given location (and prices - if possible)

Admin Panel: where you can log in as an administrator and, add/delete users, add delete cities, edit information from the database.

The product must satisfy the minimum of functionalities, namely: List of Bus / tram lines numbers and schedules, List of local operators with links to their websites, Information about ticket prices / validation / buying, Travel planners available for chosen city

6. Teamwork organization

We use Jira to be able to follow the tasks we do, and we use git for the repository.
We have adopted the client server architecture for the system and we don't use the tools CI/CD. In addition, we use the agile method

The scope of responsibilities is as follow:
Bakary:

- Front end system management with the help of React hooks:
  - Auto-complete search components
  - Line Component
  - Operator Component
  - Stop Component
  - Price Component
  - Etc.
  - Combine Backend-FrontEnd
- Code reviewing
- Creating documentation (technical documentation, requirement, acceptance criteria)
- Bug fixing
- Testing
- Future tasks

John:

- Creating the front-end part of the application e.g.
  - Creating the UI/UX
  - Styling of the application
  - Front-end data edition (admin panel)
  - Combine Backend-FrontEnd

- Code reviewing
- Creating documentation (technical documentation, requirement, acceptance criteria)
- Bug fixing
- Future task

Abdou:

- Creating the backend part of the application e.g.
  - Creating the model
  - Routing algorithm

- o Etc.
- o Bug fixing
- o Testing
- Creating documentation (technical documentation, requirement, acceptance criteria)
- Future task

Adama:

- Creating the backend part of the application e.g.
  - o Creating the model
  - o Automatization of data acquisition
  - o Etc…
- Code reviewing
- Creating documentation (technical documentation, requirement, acceptance criteria)
- Bug fixing
- Testing
- Future tasks

8. Milestones

2nd semester: 1-month sprints.

- November sprint
  - o FrontEnd data edition
  - o Backend data select
  - o Bug fixing
  - o Edit/ Delete raw data
  - o Data Edit/Delete backend
  - o Some information's are missing on the website fixing
  - o Add info about zones and asking the driver
  - o Add info on trip planners
  - o Testing
  - o View raw data from the database
  - o Download HTML
  - o Provide list of cities for search component in the front-end
  - o Line, Operator, stop component updated
  - o Pagination Component
  - o Dynamic retrieve data in the front-end using useParams in react
  - o Function to display the stop in the front-end

- December sprint

- o Add info Aftu bus
- o Route algorithm
- o Analyze html of the provider site
- o Bug fixing
- o Parser Html
- o Testing
- o Bug fixing

- January sprint
  - o Review code and left tasks
  - o Bugs fixing
  - o Deploying
  - o Bug fixing
  - o Testing application

- February sprint
  - o Review code and left tasks
  - o Bugs fixing
  - o Presenting product to some end user
  - o Presenting product to the committee