

# Mhammed Doukkali . Jarvis Consulting

As a dedicated software developer with a solid foundation in both web development and cloud computing, I bring a strong technical background to my five years of experience in the banking industry. My skill set includes expertise in COBOL, JCL, ISPF, DB2, and mainframe technologies, which complements my proficiency in Java, Linux, and Docker. My excellent track record in collaborating with team members, coupled with my ability to proactively address the needs of both customers and the organization, has honed my communication and problem-solving skills. My passion for software engineering began while working on a project to improve the online banking application. Intrigued by the power of programming to create and build solutions, I decided to enroll in an 'Introduction to Programming' course. Quickly, I found programming to be highly accessible and was thrilled to see the immediate results of my work in just a few lines of code. Currently, as an Applications and Data Engineer at Jarvis, I have sharpened my proficiency in various technologies and demonstrated my ability to work in a fast-paced environment to deliver high-quality solutions. I am eager to leverage my skills and knowledge to contribute to your team's success.

## Skills

**Proficient:** Java, Linux/Bash, PostgreSQL, COBOL, Docker

**Competent:** IMS, JCL, HTML/CSS, DB2, REST API

**Familiar:** React, Terraform, Jira, NodeJS, Spring

## Jarvis Projects

Project source code: [https://github.com/Jarvis-Consulting-Group/jarvis\\_data\\_eng-MhammedDoukkali/](https://github.com/Jarvis-Consulting-Group/jarvis_data_eng-MhammedDoukkali/)

**Cluster Monitor** [GitHub]: Implemented a monitoring agent in Bash that records the hardware specifications and usage of host machines over time and saves the data to a Postgres database running in a Docker container. The testing process involved using a CentOS 7 virtual machine on the Google Cloud Platform, and each script was manually tested to confirm that output expectations were met.

**Core Java Apps** [GitHub]:

- **Twitter App:** Designed a Twitter application that follows the MVC (Model-View-Controller) architecture, enabling users to execute CRUD operations via REST API. To build the application, I utilized various libraries such as Twitter API, HTTP client, OAuth authorization, and JSON serialization. During the development process, I conducted integration tests on all Java files using JUnit. Additionally, I employed the Mockito framework to test classes with dependencies, leveraging the ability to mock those dependencies.
- **JDBC App:** Programmed a straightforward application that establishes a link between a Java program and a relational database management system (RDBMS) to access data. To enable create, read, update, and delete (CRUD) operations, I utilized the DAO (data access object) design patterns.
- **Grep App:** Developed a Java program that imitates the grep command line function. The program performs a recursive search for a given pattern within a specified root directory and writes the matching lines to an output file. To efficiently list and filter files under the root directory while reducing memory usage, I utilized the Lambda and Stream API.

## Highlighted Projects

**Student Data Processing and Reporting System:** Developed a robust student data processing and reporting system using COBOL, VSAM, and DB2 on a mainframe platform. The system efficiently manages student records, processes data, and generates comprehensive reports. This project aimed to streamline the management of student information, ensuring data integrity and providing users with detailed and accurate reports. By integrating DB2, the project also enabled efficient database operations, allowing for seamless data querying and updates. The project significantly improved the administrative capabilities of the institution, leading to better decision-making and enhanced student data management.

## Professional Experiences

**Software Developer, Jarvis (2023-present):** - Developed various back-end and data projects involving technologies and tools such as Linux, SQL, Java and Docker. - Analyzed business requirements and proposed solutions, designed, coded

and tested software according to detailed business requirements. - Created applications that follow the MVC (Model-View-Controller) architecture, allowing users to execute CRUD operations via the REST API. - Collaborated with a team using Agile/Scrum methodology.

**Software Developer, National Bank of Canada (2023):** - Orchestrated the deployment of a wide range of AWS resources, utilizing services such as EC2, S3, DynamoDB, and EventBridge through Terraform configurations. - Implemented Vault with Spring Boot APIs for information storage. - Implemented secure data handling utilizing Vault with Spring Boot APIs for sensitive information storage. - Employed Maven for managing dependencies and builds, Docker for application containerization, ensuring smooth deployment. - Incorporated comprehensive project-specific documentation for development tasks, enhancing project clarity and facilitating seamless collaboration.

**Account Officer, National Bank of Canada (2021-2022):** - Analyzed loan applications to ensure compliance with relevant policies and regulations. - Scrutinized legal documents to confirm accuracy and completeness. - Maintained rigorous standards in the disbursement process to ensure quality results for our customers. - Collected, compiled and verified the accuracy of data to ensure portfolio management.

**Technical Advisor, National Bank of Canada (2018-2021):** - Researched, developed and maintained the tools and techniques that enable us to access and retrieve data. - Contributed to innovative projects and participated in the creation of new tools. - Collaborated with other teams and developers on the implementation of new functionalities on the online banking application. - Supported the bank's entrepreneurial customers in their transaction needs.

**Banking Specialist, National Bank of Canada (2017-2018):** - Verified and controlled money transfers in complex systems to respond to inquiries. - Guided users in managing electronic solutions. - Provided technical support to our customers.

## Education

**Concordia University (2022),** Diploma Web Development, Computer Science

**Mohammed V Souissi University (2008-2012),** Bachelor's Degree Business Administration, Management Science

## Miscellaneous

- AWS Certified Developer
- Engaging in endurance running
- Enthusiastic percussionist with a passion for rhythm and beat
- Guitare player for the past two decades
- Volunteer Guignolée Dr Julien