Developer Toolkit #2

# Overview

By Jon Scheele & Dixant Mittal





### **About Us**



Jon Scheele

API Consultant &
Organiser, APIdays SG & JKT
Specialisation: API Strategy
and Execution, Open Banking

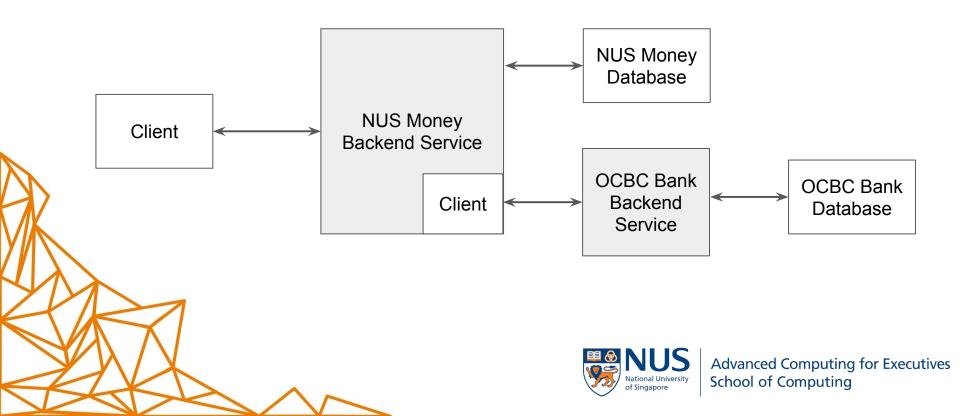


Dixant Mittal

Teaching Assistant &
PhD Student, NUS Computing
Ex-Senior Software Developer



### Course Overview



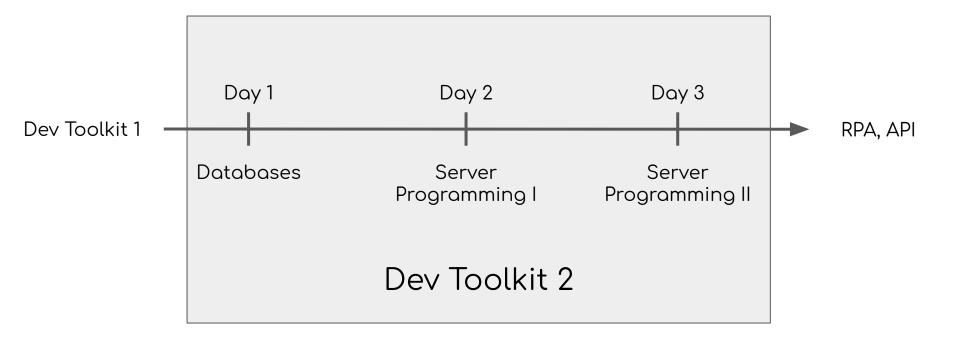
### Course Overview

Setting up a back-end system to store data securely and enable authorised client applications to access.

- SQL Databases, queries and joins
- Setting up a backend server using Node.js
- Exposing data through an API
- Connecting a frontend client app to the backend
  - Ways to secure the application.



### Course Schedule



# Project

- Build the Backend of the NUS Money app
  - Using MySQL, design a database for the app.
  - o Make an API specifications document to list all your APIs and their usage.
  - o Using Node.js, implement the APIs.
- Connect the Backend service with the NUS Money Frontend Client (End-to-end implementation)



### Database Engineer

### **Database Engineer**

ZALORA Group · Singapore

Posted 6 months ago • (1) Be among the first 25 applicants



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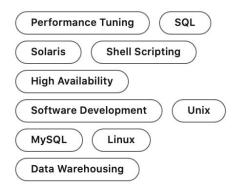
We are looking for an experienced **Database Engineer** to join us who will own the database.

#### Responsibilities

- Query optimization on large scale systems
- Improve MySQL server config and schema with periodical review
- Manage existing AWS RDS MySQL, Aurora MySQL and MySQL/MariaDB on EC2
- Work on migration of existing database to new environment
- Improve redundancy and availability of database systems including Disaster Recovery
- · Security on database systems
- On-call duty

#### Requirements

- BS/MS in Computer Science or related technical discipline.
- · 5+ years of experience on managing database
- Advanced knowledge on MySQL
- · Optional) Experience on Amazon Aurora
- Optional) Shell, Python, Ruby, Golang skill
- \* Optional) Terraform, Ansible or any configuration management system, orchestration tool experience





### Data Analyst



#### **Business Data Analyst**

AIA • Singapore, Singapore
Posted 4 days ago • 87 applicants

#### Roles & Responsibilities (Contract role)

- Act as the liaison between tech team and business users for the development and implementation of new Datamarts and enhancement of existing Datawarehouse
- Validate the data points in the warehouse ensuring integrity of data and correcting any data problems; assists with establishing design procedures to purge/archive old data
- Creating, maintaining and executing re-usable scripts, detailed instructions and anticipated results on validating source and target data
- Provide support to business during the UAT phase
- Develop best practise for templates of data deliverables

#### Job Requirements

- Strong SQL, data querying, and data analysis skills
- Track record in analysing large datasets; capability in executing full data cycle including data manipulation and visualization
- Prior experience on system and UAT testing of Datamarts is a plus
- Highly motivated individual who possess intellectual curiosity, strong problem solving and communication skills with a can-do attitude
- Fast learner, willing to take initiative and take ownership of everything you do
- Pay attention to detail and quality of work





### Data Analyst

#### **Data Analyst**

- · Newly Created Role
- · Great Working Environment

#### **About Our Client**

Our client is a well-known brand with strong presence within the Singapore region. They are looking to hire a Data Analyst.

#### **Job Description**

As a Data Analyst, you will be responsible for the following:

- Creating and maintaining optimal data pipeline architectures from various channels while directing data flow into BigQuery Data Warehouse.
- Ensuring optimal accuracy and timeliness of Data on a real-time basis while implementing monitoring tools to detect data issues.
- Designing includes ETL processes while collaborating closely with analytical teams across the business.
- Collaborating closely with engineering and businesses units to manage data to drive cross-channel targeting and personalization.
- Resolving Data quality issues, this includes root cause analysis while managing internal and external vendors to resolve Data issues.
- Ensuring Data security, this includes facilitating Data protection and compliance of customer's Data while incorporating emerging technologies to enhance existing Data Warehouse.

#### The Successful Applicant

As a successful candidate you will have a bachelor's degree in Computer science or equivalent with at least 5 years of hands on experience in data engineer function. You will have experience in designing data models along with supporting various data warehouses as well. You will also have experience in analyzing large datasets using SQL and Python. Prior knowledge in big data tools such as Hadoop and Spark will be good to have.



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# Data Engineer

#### You Will Be Responsible For

- Developing scripts to process structured and unstructured data.
- Recommending, developing and implementing ways to improve data reliability, efficiency and quality.
- Supporting translation of data business needs into technical system requirements.
- Working with stakeholders to understand needs in order with respect to data structure, availability, scalability and accessibility.

#### The Profile

- You possess a degree in Computer Science, Applied Mathematics, Engineering or related field.
- You have at least 1 year experience, ideally within a Data Engineer role.
- Demonstrated experience working with large and complex data sets as well as experience analyzing volumes of data.
- You possess strong knowledge of Javascript, Node.js and Python.
- Good knowledge of Cloud Databases (eg. AWS, Azure), DB as a service DBAAS and MySQL databases.
- You pay strong attention to detail and deliver work that is of a high standard
- You possess strong analytical skills and are comfortable dealing with numerical data
- You are a self-starter and demonstrate a high level of resilience

### **Desired Skills and Experience**

Data, Linux, MS SQL, MSSQL, MySQL, PostgreSQL, Project Management, Python, Reliable, System Requirements, Testing, Translation, data structure





# Java/NodeJS Developer

### Java/NodeJS Developer

Technopals Pte Ltd • Singapore, Singapore

Posted 1 week ago • O Be among the first 25 applicants

- Bachelor's degree or higher in Computer Science, Engineering or related field
- 4+ years of software engineering experience with a focus on distributed systems in the cloud
- Mastery of one or more of the following languages: Java or NodeJS, and Python
- Broad experience in a variety of backend technologies: REST APIs, caching, databases, messaging, stream processing, deployment pipelines, systems monitoring
- Excellent problem-solving abilities
- Technologies being used are All things Amazon AWS, Docker, Redis, Elasticsearch, Terraform, CloudOS

- Demonstrate technical excellence resulting in a scalable, reliable, performant, and maintainable services
- · Collaborate with API consumers on requirements and solutions
- Write high-quality code and tests following test-driven design principles
- Work within an agile framework to continuously deliver quality software in a fast-paced environment
- Assist in the operation of the service, e.g. monitoring, alerting, metrics, logging and troubleshooting
- Participate in code reviews to ensure new code conforms to highest standards

### **Desired Skills and Experience**

Cloud, Cloud Security, Distributed Systems, Information Technology, Java, Microsoft Technologies, NodeJS, Python, Software developing, REST APIs



# Back End Software Engineer

#### Get To Know Our Team

In Agoda's Back End Engineering department, we build the scalable, fault-tolerant systems and APIs that host our core business logic. Our systems cover all major areas of our business; inventory and pricing, product information, customer data, communications, partner data, booking systems, payments, and more. These mission-critical systems change frequently with dozens of releases per day, so we must employ state-of-the-art CI/CD and testing techniques in order to make sure everything works without any downtime. We also ensure that our systems are self-healing, responding gracefully to extreme loads or unexpected input. In order to accomplish this, we use state-of-the-art languages like Scala and Go, data technologies like Kafka and Aerospike, and agile development practices. Most importantly though, we hire great people from all around the world and empower them to be successful. Whether it's building new projects like Flights and Packages or reimagining our existing business, you'll make a big impact as part of the Back End Engineering team.

#### The Opportunity

Agoda Platform team is looking for developers to work on mission critical systems that deal with the designing and development of APIs that serve millions of user search requests a day.

#### In This Role, You'll Get To

- You build the scalable, fault-tolerant systems and APIs that host our core business logic
- You will use state-of-the-art languages like Scala and Go, data technologies like Kafka and Aerospike, and agile development practices
- You must employ state-of-the-art CI/CD and testing techniques in order to make sure everything works without any downtime

#### What You'll Need To Succeed

- 1-4 years' experience under your belt developing performancecritical applications that run in a production environment using Scala and or Java.
- You have RDBMS knowledge (SQL Server, Oracle, MySql or other)
- You have a Good command of the English language.
- You are passionate about the craft of software development and constantly work to improve your knowledge and skills.

#### It's Great If You Have

 Knowledge in one or more of the following: NoSQL (especially, but not only Cassandra), Queueing system experience (Kafka, RabbitMQ, ActiveMQ, MSMQ), Play framework, Akka library.



# Full Stack Developer

### Full Stack Developer (Entry)

DXC Technology · Singapore, Singapore

Posted 3 weeks ago • 41 applicants

#### **Job Description**

Must be onsite at customer location for development and support with the following skill sets:

- Effective oral and written communication skills in English with excellent interpersonal skills.
- · Experience in analyzing info, and problem-solving skills.
- Ability to communicate ideas in both technical and user-friendly language.
- Knowledge and experience with REST APIs, creating API centric microservices applications, working and connecting with API.
- Proficiency in one or more API M platforms (WSO2 / Mulesoft / Azure/AWS API gateway/ Apigee).
- Proficiency in one or more backend languages (Spring boot / NodeJS / Python).
- Proficiency in one or more frontend framework (HTML5 / Angular / React).
- School or project experience developing on both mobile and web platforms.
- Knowledge in Redis, Docker, Jenkins, Teamcity, SVN, GIT, and GIT LAB.



#### Seniority Level

Mid-Senior level

#### Industry

Information Technology & Services

,

Computer Software,

Financial Services

#### **Employment Type**

Full-time

#### **Job Functions**

Engineering,

Information Technology

