

# Information System for Decision Making

M. NDOUMI NYNKE François  
IT Engineer /Master/PhD\_Student

**Goal:** This course allows students to master the design and implementation of distributed databases

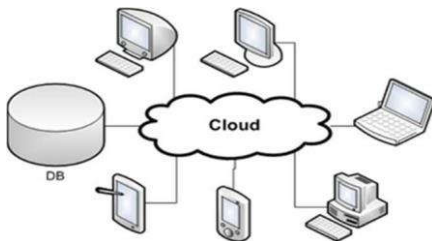
# **I- General information on distributed databases**

1. Definition
2. Problematic
3. Purpose of allocation
4. Data distribution architecture...
5. Benefits
6. Constraints

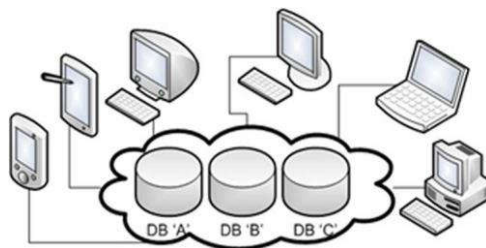
# I- GENERAL INFORMATION ON DISTRIBUTED DATABASES

## 1- Definitions

- A **database** is an ordered collection of related data that is built for a specific purpose. A database may be organized as a collection of multiple tables, where a table represents a real world element or entity. Each table has several different fields that represent the characteristic features of the entity.



- A **database management system** is a collection of programs that enables creation and maintenance of a database. DBMS is available as a software package that facilitates definition, construction, manipulation and sharing of data in a database. Definition of a database includes description of the structure of a database. Construction of a database involves actual storing of the data in any storage medium. Manipulation refers to the retrieving information from the database, updating the database and generating reports. Sharing of data facilitates data to be accessed by different users or programs.
- **Distributed database** : A distributed database (DDB) is a collection of multiple, logically interrelated databases distributed over a computer network.



- The term distributed database system (DDBS) is typically used to refer to the combination of DDB and the distributed DBMS
- Distributed DBMSs are similar to distributed file systems (see Distributed File Systems) in that both facilitate access to distributed data.

**Distributed database system (DDBS) = DB + Communication**

## **2- Problematic**

The databases are first of all normal databases. In fact, they stem from the evolution of the latter. Indeed, the management of databases over time has faced various problems which are:

- The increase in the volume of data;
- The increase in the volume of treatments;
- the increase in the volume of transactions;

The need for distributed systems has been determined by studies, research and concerns in educational field by the universities with geographically distributed locations where the specific organizational structure promotes a decentralized research model. For institutions that are expanding globally, the exchange of data between multiple databases and applications has become very important.



SAID BOUZERDA



## A PROPOS



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92330, Sceaux, Paris



## COMPETENCES

C++	●●○○○
Java	●●○○○
.Net	●●○○○
JavaScript	●●○○○
Html5/Css3	●●○○○
Dynamic AX	●●○○○



## LANGUES

Arabe	●●●●●
Français	●●●●●
Anglais	●●●○○



## LOISIRS

Cinema  
Lecture  
Bricolage



## Formation

● 2019-2020 ●  
INSA

**Mastère Spécialisé Mention Informatique, Système d'information, Télécommunication et Réseaux.**

Institut National des Sciences Appliquées de Lyon (INSA), France.

● 2018-2019 ●  
OpenClassrooms

**Certificat de réussite en développement informatique**

Html5/Css3, JavaScript, Php, MySQL et Java

● 2014-2017 ●  
EPI

**Diplôme national d'ingénieur en génie électromécanique**

Ecole Pluridisciplinaire Internationale de Sousse (EPI), Tunisie.



## Compétences

**Back-Office:**

JAVA, PHP, C++, X++, Node js

**Front-Office:**

HTML5, CSS3, Javascript

**SGBD:**

MySQL, PostgreSQL, SQL Server

**Repository & SCM:**

Git, GitHub

**Environnements:**

Linux, Window



## Expériences Professionnelle

● 04-2020/09-2020 ●  
Avanade - 06 mois

**Stage de fin d'étude : Consultant technique**

Dans le cadre du projet BAMS

**Mission:**

- Etude analyse et correction des bugs des ERP.
- Analyse du cahier des charges et rédaction des spécifications techniques détaillées.
- Développement des nouvelles fonctionnalités pour l'application ERP.
- Réalisation des tests unitaires et participation aux tests d'intégration.

**Environnement Technique :** Dynamic AX, X++, SQL Server

● 01-2020/03-2020 ●  
INSA Lyon - 03 mois

**Projet Transversal : Automatisation d'un processus de paiement (paiement par carte à puce)**

**Objectifs :** Mettre en place un système de paiement par carte à puce pour remplacer les tickets restaurant.

**Mission:**

- Développement de site web
- Authentification et gestion de droit.
- Opération de débit et de crédit (compensation)
- Traitement des opérations carte à puce (simulation avec une carte et Shield Arduino)

**Environnement Technique :** Java, Spring Boot, MySQL

● 01-2016/06-2018 ●  
Quantum – 6 mois

**Ingénieur électromécanique**

**Intitulé :** Augmenter le taux de production de l'or par jour pour le client Kinross Gold Corporation.

**Environnement Technique :** SolidWorks, AutoCAD.

● 02-2017/12-2017 ●  
STT – 10 mois

**Responsable maintenance**

**Intitulé :** Pilotage de l'activité de maintenance

**Environnement Technique :** GMAO

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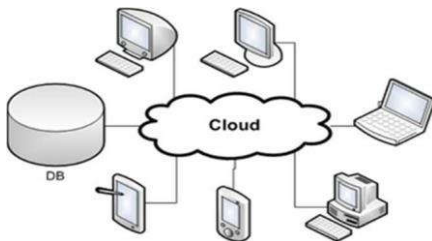
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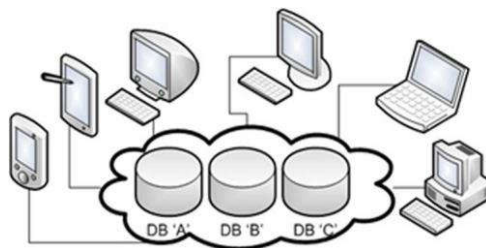
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Agence / Agency : **YAOUNDE - ETOUDI**

Ville : **YAOUNDE**

Point De Livraison / Supply Point Address : **YAOUNDE -8723-98-01-1107**

No. Compteur / Meter

No Compteur Remplacé /

Date Releve / Reading

Date de Facturation / B

Code Regroupement /

### Total Facture / Bill Totals

### Détails de la facture / Bill Items

### Ancien Index / Previous Reading

### Nouveau Index / Previous Reading

Impayés/  
Arrears: **0**  
Facture Du:  
Mois/ **13.300**  
Current Bill :

Dettes Totales /  
Total Debt: **13.300**

\*Cette situation peut avoir changé  
au moment où vous recevez cette  
facture / This situation can be  
different by the time you are  
receiving this bill.

### Historique Facturation / Billing History

Mois/Month	Qté/Units	Montant/Amt
<b>JUN-21</b>	<b>97</b>	<b>4.850</b>
<b>MAY-21</b>	<b>188</b>	<b>9.400</b>
<b>APR-21</b>	<b>310</b>	<b>15.500</b>
<b>MAR-21</b>	<b>400</b>	<b>20.000</b>
<b>FEB-21</b>	<b>200</b>	<b>10.000</b>

Conso. Compteur actuel / Current Meter Cons ump.  
Conso. Compteur remplacé / Previous Meter  
Consump

**785**

TOTAL Energies Consommées / Energy Consumed

Tranche 1 / Tarif 1

Tranche 2 / Tarif 2

Contingent / Others

Location Compteur / Meter Rent

TOTAL Facture Hors Taxes / TOTAL Bill Without Tax

TVA Sur Autres / VAT For Others

TVA Consommation Client / VAT Meter Rent

TOTAL Taxes / TAX (1,25%)

TOTAL TTC / WITH TAX

Recevez gratuitement le solde de votre facture par SMS. Envoyez Nom+No

### MESSAGE AU CLIENT:



Nous sommes à votre écoute et nous vous tenons au courant