

# Datos 1

2021

# Mundo de los Datos

## Estructurados



|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.103 | 0.176 | 0.387 | 0.300 | 0.379 |
| 0.333 | 0.384 | 0.564 | 0.587 | 0.857 |
| 0.421 | 0.309 | 0.654 | 0.729 | 0.228 |
| 0.266 | 0.750 | 1.056 | 0.936 | 0.911 |
| 0.225 | 0.326 | 0.643 | 0.337 | 0.721 |
| 0.187 | 0.586 | 0.529 | 0.340 | 0.829 |
| 0.153 | 0.485 | 0.560 | 0.428 | 0.628 |

## Semi Estructurados



## No Estructurados



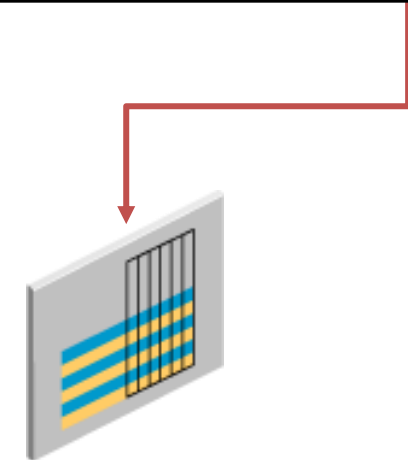
## Seguridad



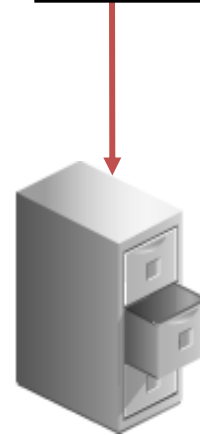
# ¿Porqué un manejador de datos?

| DEPARTMENT_ID | DEPARTMENT_NAME   | MANAGER_ID | LOCATION_ID |
|---------------|-------------------|------------|-------------|
| 1             | 10 Administration | 200        | 1700        |
| 2             | 20 Marketing      | 201        | 1800        |
| 3             | 50 Shipping       |            |             |
| 4             | 60 IT             |            |             |
| 5             | 80 Sales          |            |             |
| 6             | 90 Executive      |            |             |
| 7             | 110 Accounting    |            |             |
| 8             | 190 Contracting   |            |             |

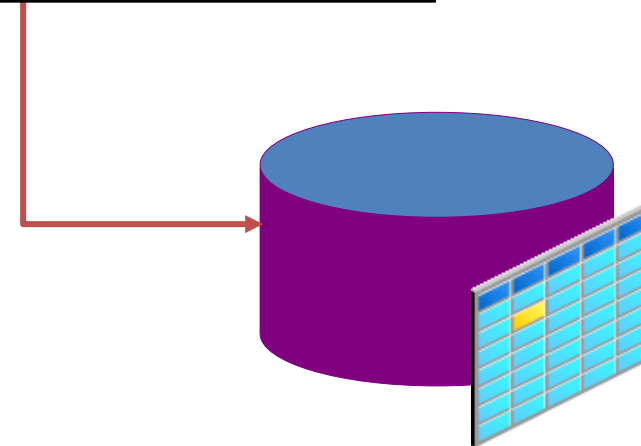
| GRADE_LEVEL | LOWEST_SAL | HIGHEST_SAL |
|-------------|------------|-------------|
| 1 A         | 1000       | 2999        |
| 2 B         | 3000       | 5999        |
| 3 C         | 6000       | 9999        |
| 4 D         | 10000      | 14999       |
| 5 E         | 15000      | 24999       |
| 6 F         | 25000      | 40000       |



Hoja  
electronica

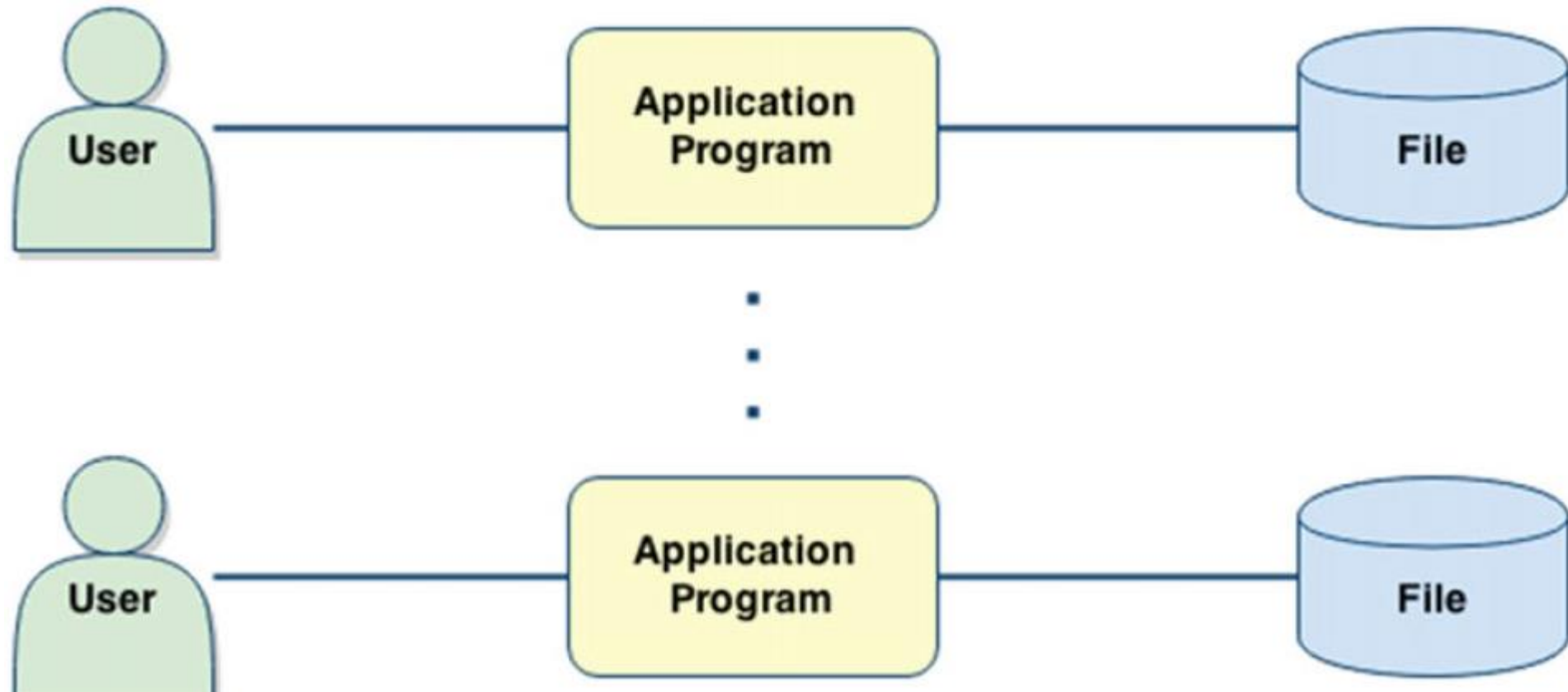


Archivos

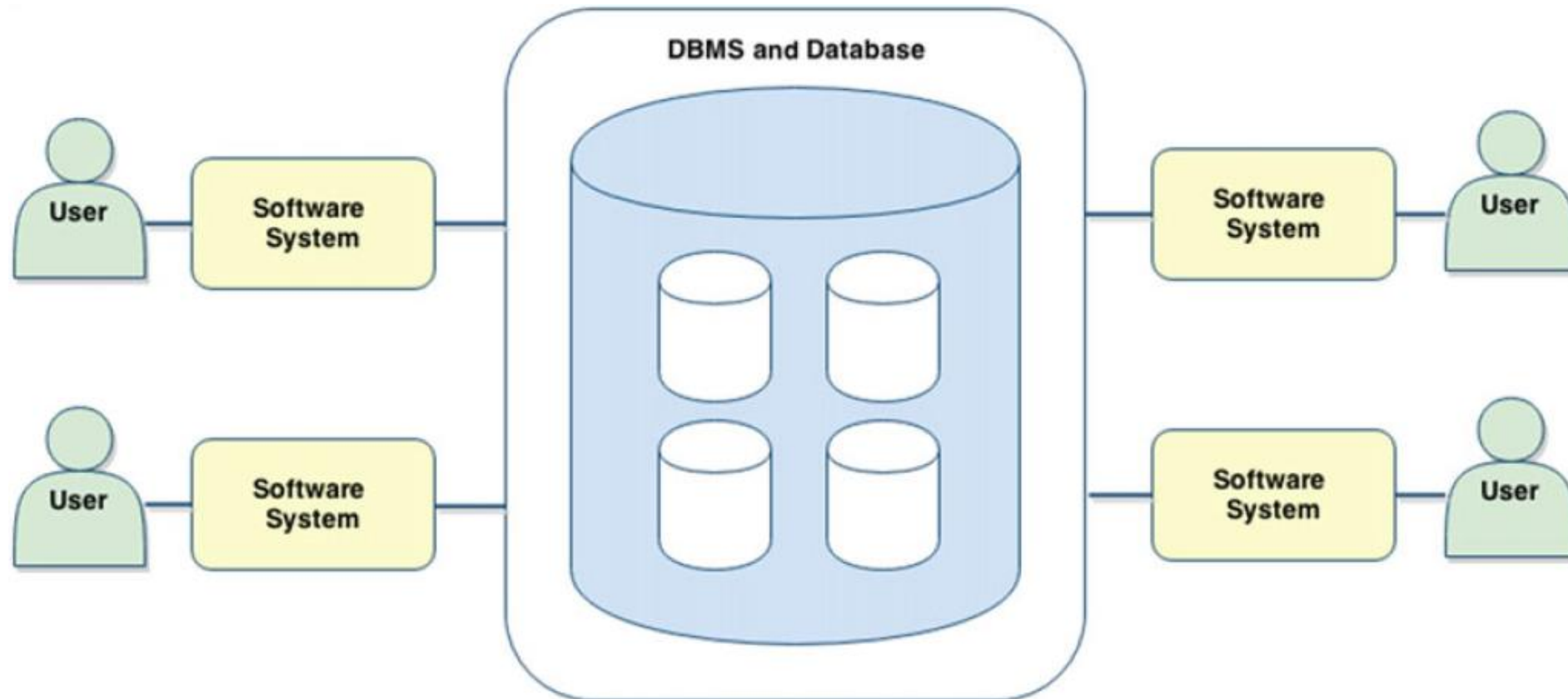


Manejador de  
datos

# Manejo de datos – Usuario/Archivo



# Enfoque de un manejador de datos



# Tipos de base de datos

- File based: Sistema de archivos para manejo crudo de los datos.
- Manejadores de Bases de datos:
  - SQL, ACID
  - Modelos: relacional, objetos, jerarquicas.
- NoSQL: No relacionales, que ofrecen mayor escalabilidad.
  - Modelos: columnar, documentos, grafos, in-memory
- Por su uso pueden ser
  - OLTP
  - OLAP
  - Batch, Mixed

# Database Cloud Services

## Azure

- SQL Server on VM
- SQL Database
- SQL Datawarehouse
- SQL Database for:
  - PostgreSQL
  - MySQL
  - MariaDB

## AWS

- Amazon Aurora for
  - MySQL
  - PostgreSQL
- MySQL
- PostgreSQL
- MariaDB
- SQL Server
- Oracle

## Oracle

- Autonomous Transaction Processing
- Autonomous Data Warehouse
- Database Cloud Service VM
- Database Cloud Service Bare Metal
- Exadata Cloud Service
- Exadata Cloud at customer



# Asignación

- Lectura Capitulo 1 – Introduction to Database Systems
- Crear cuenta de Oracle Cloud Infrastructure (Always free)

<https://www.oracle.com/cloud/free/>

- Lectura – Key Concepts and Terminology

