**Final project:**

**“Guadalajara International Airport”**

By


| | |
|---|---|
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Databases
Prof. Ana Delia Esparza Soto
May 27, 2020

# Index

## Phase I:

## Introduction

This document intends to describe the general tasks carried out in the different Analysis and Design processes, as well as the results generated by each one, within the development of a digital solution for the international airport of Guadalajara, Jalisco.

The motivation to generate this solution is due to the fact that today, and especially in a company such as the international airport of one of the largest cities in the Mexican territory, there is a large flow of data and information that is constantly changing and comes from different areas. that the company manages, these data also need to be available to the people who work in this company and work with them, so they must be able to find the information they are looking for in a clear, exact and fast way.

The company requires a way to visualize all its information with the aforementioned attributes, likewise it is sought that with a solution, work performance and the centralization of information can be increased. Therefore, it is proposed to develop a database that works for employees who need to consult information regardless of their geographical location.

For this specific document, the first stages of the project are mentioned, the analysis, which is where the information acquired is presented and analyzed, and the design phase, where a design is implemented based on the aforementioned information.

The document has detailed descriptions of the analysis and design stages prior to the development of the database, the problem is specified, the issues it addresses and the resources necessary to deal with them; It also shows the individuals involved in the project and the diagrams that specify the design and functionality of the database.

## Analysis:

## Guadalajara International Airport

Airports are the ground terminals where air transport trips on aircraft begin and end. The functions of the airports are several, among them the landing and takeoff of aircraft, boarding and disembarking of passengers, baggage and merchandise, refueling and maintenance of aircraft, as well as a parking place for those that are not in service.

An airport has different types of positions such as administrative technician, flight dispatcher, airport operations technician, airport service agent, ground attendant, stewardess or flight attendant or cabin crew.

The airport is made up of two runways and two terminals. It is a main airport for connections, being a hub of Aeromexico Connect, you will fly, an entrance to the USA, a secondary hub of Aeroméxico, and focus for Long live Aerobus It is Interjet. It has flights to various places in Mexico, Central America and USA.

The airport has two types of terminals, passenger and cargo, in our case for our database we will focus only on the part of the **passenger terminal**which receives national and international flights and has 12 aircraft access gangways and with 27 remote positions.

The airport has a terminal divided into five rooms. Currently 16 operate**airlines** offering 57**destinations**.

Service is provided to 24 cities in the United States, 1 to Panama and 1 to Cuba, by 12 airlines.

Service is provided to 31 cities within the country by 9 airlines. The destinations of Aeromexico are also operated by Aeromexico Connect.

The airport hasrestaurants, parking and transportation service.These areas have entrances and exits from different distributors with their prime products on different days of the month. In addition, they usually require some shipping and cleaning services, among others, for organizational issues.

It also has a fairly large staff for each area of the airport such as:

- **Admnistrative technician**: These technicians are in charge of making reports, preparing documentation, serving customers and carrying out management work.
- **Flight Dispatcher:** It is in charge of the supervision and control of everything necessary for the flight to be successful.
- **Airport Operations Technician (TOA)**: for this course you do need to have a degree.
- **Airport Services Agent**: is in charge of preparing reports, responding to customer requests.
- **land assistant:** They are responsible for registering passengers and their luggage for flights.
- **Stewardess/Flight Attendant or Passenger Cabin Crew (TCP):** You must be of legal age and have a minimum height, this depends on each airline but the average is 1.57 for women and 1.68 for men.

## problem analysis

### *domain analysis*

One of the possible weaknesses that companies have may be the lack of an efficient and established way of managing information, since they do not have a database with which

to work and this means that there is no solid support as such. for company data. Through this project, an attempt will be made to manage this by proposing a database that manages certain sections for the Guadalajara international airport.

The threats that this company faces are the variation and constant change that exists in the information that comes in and goes out, in addition to the large amount of data that is handled. Another could be the greater need for concentration and control of the information that is required in these media, given the fact that most workers now use digital media for their day-to-day work.

Currently, technology has changed the way you obtain information and perform searches. Currently, the way of collaboration and communication has become digital and the company we are working with requires a technological solution where it shows its data in an orderly, fast and clear way to its workforce.

## Requirements Specification Document (SRS)

*Purpose*

The objective of this document is to expose the work carried out in the analysis and design stage for the prototype of a database that is intended to be carried out for the Guadalajara airport. This document will contain the bases and documentation of the

information collected as well as the steps to generate the aforementioned solution, all with the purpose of having a record of the progress as well as following the necessary steps to make a good design of a database.

In the case of the database, a platform is sought that will provide the company with a service that facilitates, speeds up and simplifies the visualization and organization of its information, as well as the possibility that its workers, who require this type of information, , they can simply and accurately observe the necessary data from any point with an Internet connection and at any time.

*Reach*

The database will allow workers to search and view existing information, as well as generate more accurate searches for requested items from this database. The software will allow these people to see the information details instantly from wherever they are if they have the necessary permissions. In addition, this database will serve to have control and order for the information that is considered relevant to the company and project.

Some of the functions that are intended with this solution are the following: Consultations on specific data, consultation according to categories, consultation according to dates and consultation according to costs.

Although the database will be available to the company, the target audience that is intended to be reached with this solution are workers who currently work in areas that require consultation of the data collected for their projects.

*Stakeholders*

Roles involved in the project:

- **Project administrator:** Controls and manages project resources in order to meet the defined plan and objective.
- **Analyst:**It is in charge of having the product with the defined time and budget and subject to the established requirements.
- **software designer:**defines and designs what the software will be based on research and analysis.
- **Graphic designer:** generates the graphic part of the interface, thus improving the user experience.
- **Programmer:**is responsible for making this project functional.
- **Dough:** locate errors and possible failures.
- **Clients/Users:**son those who request the product and/or use it as a necessary part of their work.

*Business and user requirements*

| **User Story ID** | **As a <type of user (Role)>** | **I want to <perform some task>** | **So that i can <achieve some goal>** |
|---|---|---|---|
| | Head of Department | Save, distribute and manipulate the data of your department such as the number of employees and requests for supplies | Making the area more efficient and having control over the management of available |

| | | | |
|---|---|---|---|
| US-1 | | and services, these data are of vital importance for sharing with other users with the necessary permissions for the use of this database. | supplies or employees in certain areas, this helps to avoid future problems and to be able to keep the airport operating in optimal conditions. |
| US-2 | Airport Employees | Make use of the database to store and access information. The employees will have access to the data of their department and their own, as well as the information of their due access such as the orders made, the types of services requested and their dates, etc. | To be able to consult and save this information in order to efficiently carry outwhat jobs that require it. |

| | | | |
|---|---|---|---|
| US-3 | Airport Administration | Access the information that the airport, such as the data of the companies and flights, schedules and runways, provides through its online database. | Know the dynamics of the airport and efficiently manage the spaces and schedules so that users enjoy the service without delays. |

*Functional requirements*

| **FR ID** | **Description** | **User Story Relationship** |
|---|---|---|
| FR-1 | The database will store information about the services, areas and departments that are located at the airport. | US-1, US-2,US-3 |
| FR-2 | The database will allow access to vital information from the work area depending on the airport so that different | US-2 |

| | | |
|---|---|---|
| | workers can know what needs to be done and what needs to be stored as evidence. | |
| FR-3 | The database will allow access to updated information on its various services such as flight dates, available runways and everything related to the various areas that are located at the airport. | US-1 |
| FR-4 | The database must store basic data for each class such as dates, types of flights, runway availability, types of services, among others; as well as vital data such as primary functions (Identifiers such as the IDs of various areas, etc.). | US-3 |
| FR-5 | The database will maintain the clarity of the information on flights, runways, schedules, companies, etc. to avoid duplication of the same. | US-3 |

*FR – Functional Requirement

*non-functional requirements*

| **NFR ID** | **Description** | **User Story Relationship** |
|---|---|---|

| | | |
|---|---|---|
| NFR-1 | The database will have access limits according to the user's authorization level. The airport and its representative may decide the level of authorization for each user. | US-2 |
| NFR-2 | The database may be shared for a limit of 5 authorized users for each area. Users/employees may use this database simultaneously, but only for what is required by their areas. | US-1,US-2 |
| NFR-3 | The organization will have to ensure that the database follows the correct standards. The airport and its representative will have to follow up on the database and the standards that are established externally. | US-3 |
| NFR-4 | The organization must provide maintenance to the database every month to avoid system failures. The airport and its representative will have to monitor the operation of the database and the amount stored in it. | US-1, US-2 |
| NFR-5 | The security level within the database must be high or its use could be risky for storing data. The airport and its representative must be informed weekly about the use | US-1,US-2,US-3 |

| | | |
|---|---|---|
| | that is given to the database and the level of protection found in it. | |
| NFR-6 | Within the database, strictly data from the airport and its services must be stored, any external to these will be considered an ethical breach. Users/employees should be aware of the data that is stored in the database as well as the airport and its representative. | US-2 |

*NFR – Non-Functional Requirement

## Conceptual Design Specification Document

### Purpose

The database will manage information about the company and its services, to allow viewing the data that certain people will require for their day-to-day work. These data can be consulted through the Internet, in addition, it will be possible to manage the information through searches for relevant information or an organization based on clear parameters such as areas, dates and costs. The interface must have an adequate categorization of the information, allowing it to be intuitive for the search and have a clear organization of the information and a user-friendly design. All this with the purpose of improving communication with the company, improving performance and establishing efficient information management.

The graphical user/client interfaces will be as simple as possible according to the level of complexity that an airport is assigned, the level of communication will be extremely

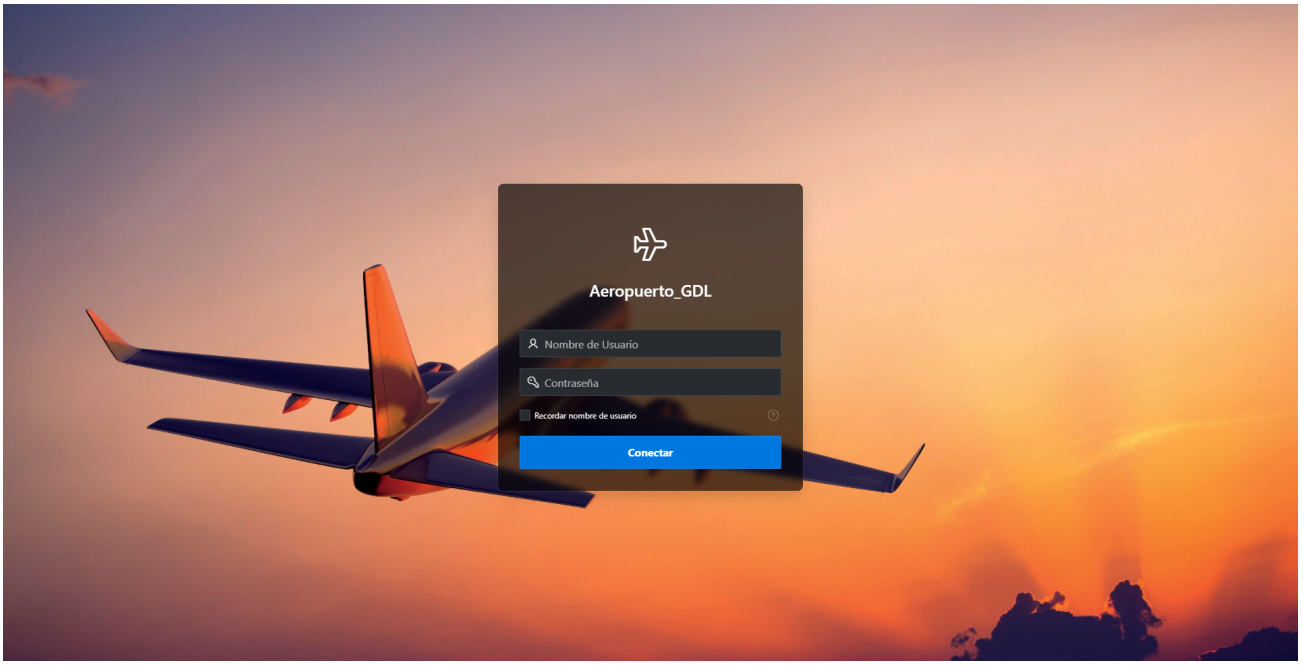
efficient in relation to the management of these interfaces to achieve the objective of optimizing services. and the means by which the airport offers them.

The graphical user/employee interfaces will be easy to manipulate and access so that each user with the appropriate permissions can efficiently manage the information they collect in their work area.

Finally, the graphic interfaces of the airport representative will be extremely available and manageable for proper supervision.

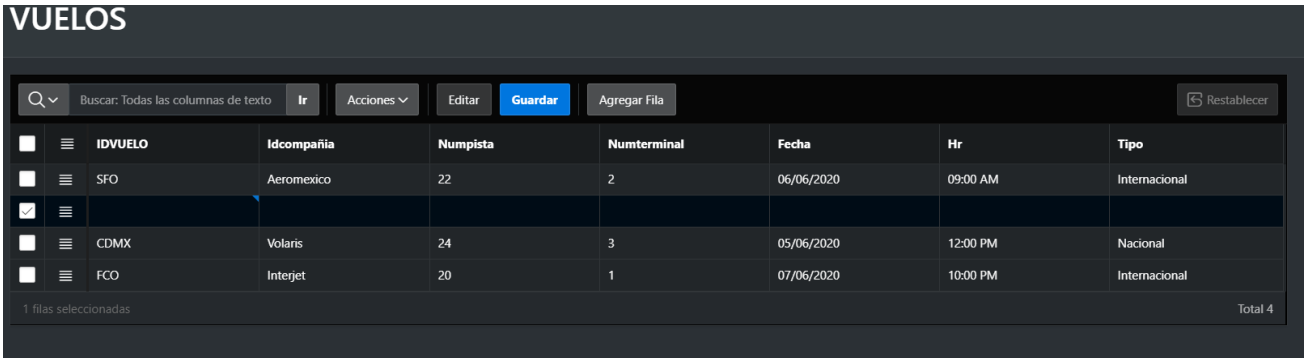
## Graphic User Interface Design

Login for database users, the login would be the same for all users, both for the worker, the director and the administrator, where each user will have their own username and password.

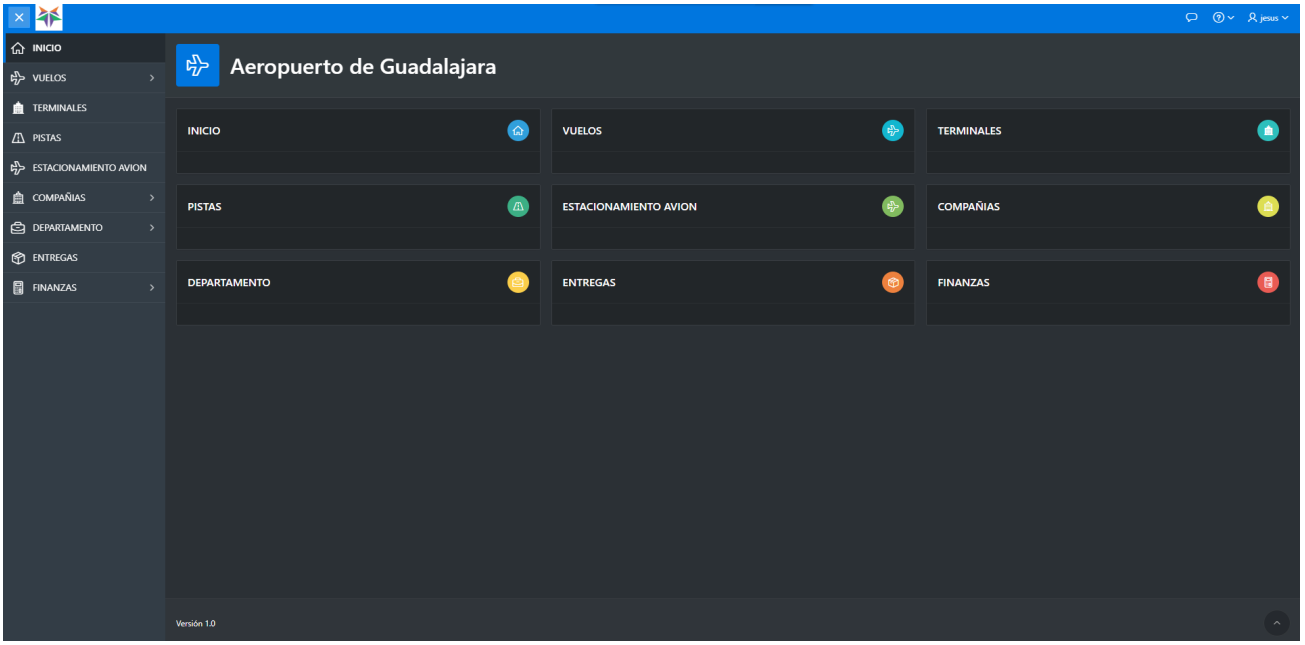


Graphic interface of the application, where users can view the different pages that the database has.


Screen to add new flights:

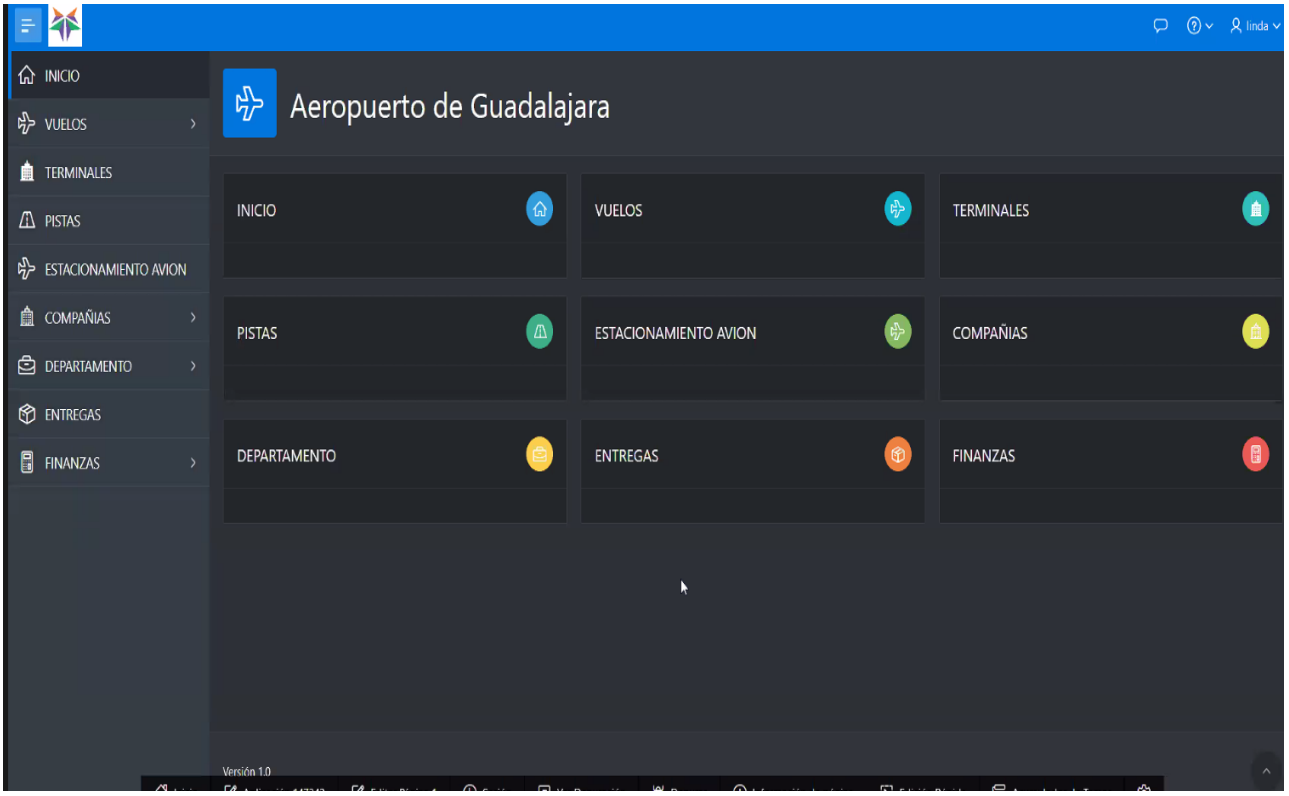



Employee view screen:

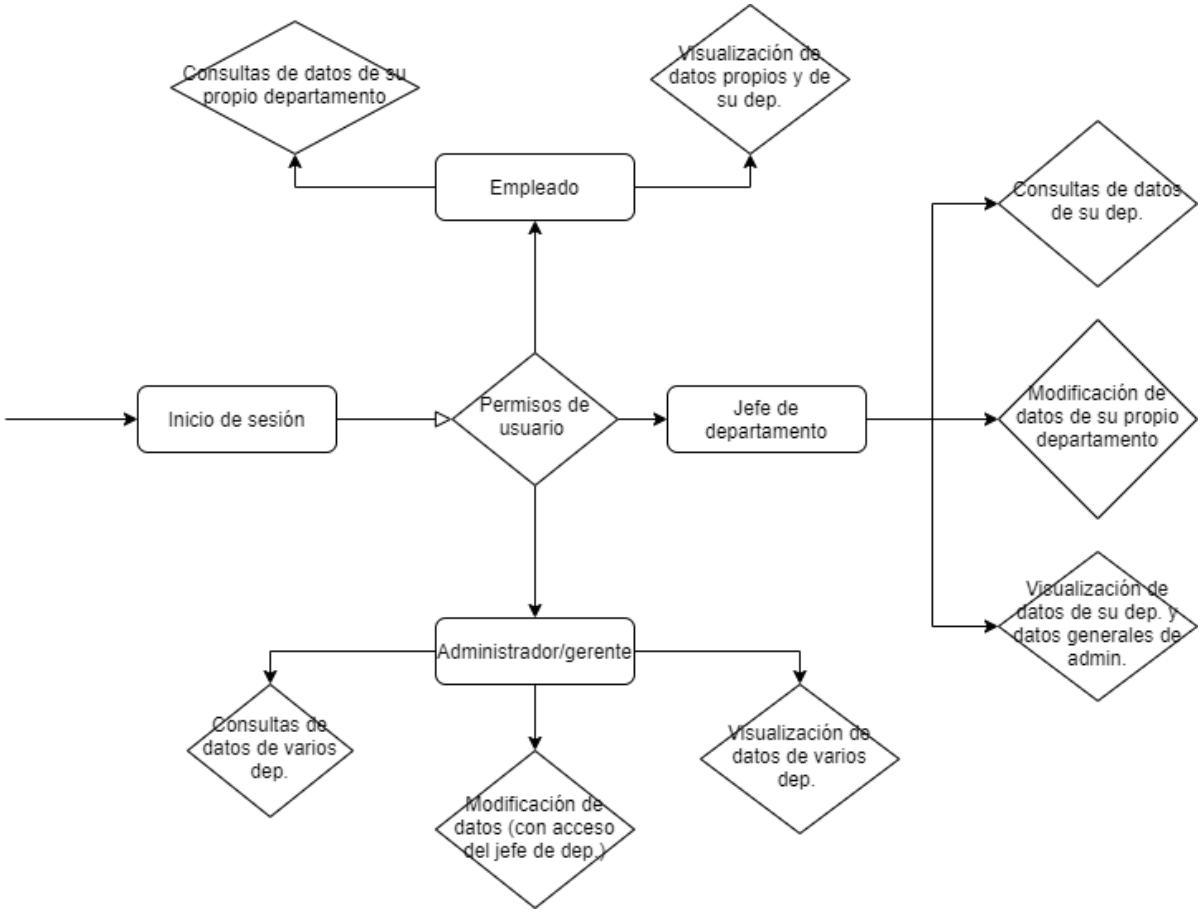



Administrator/Manager view screen:

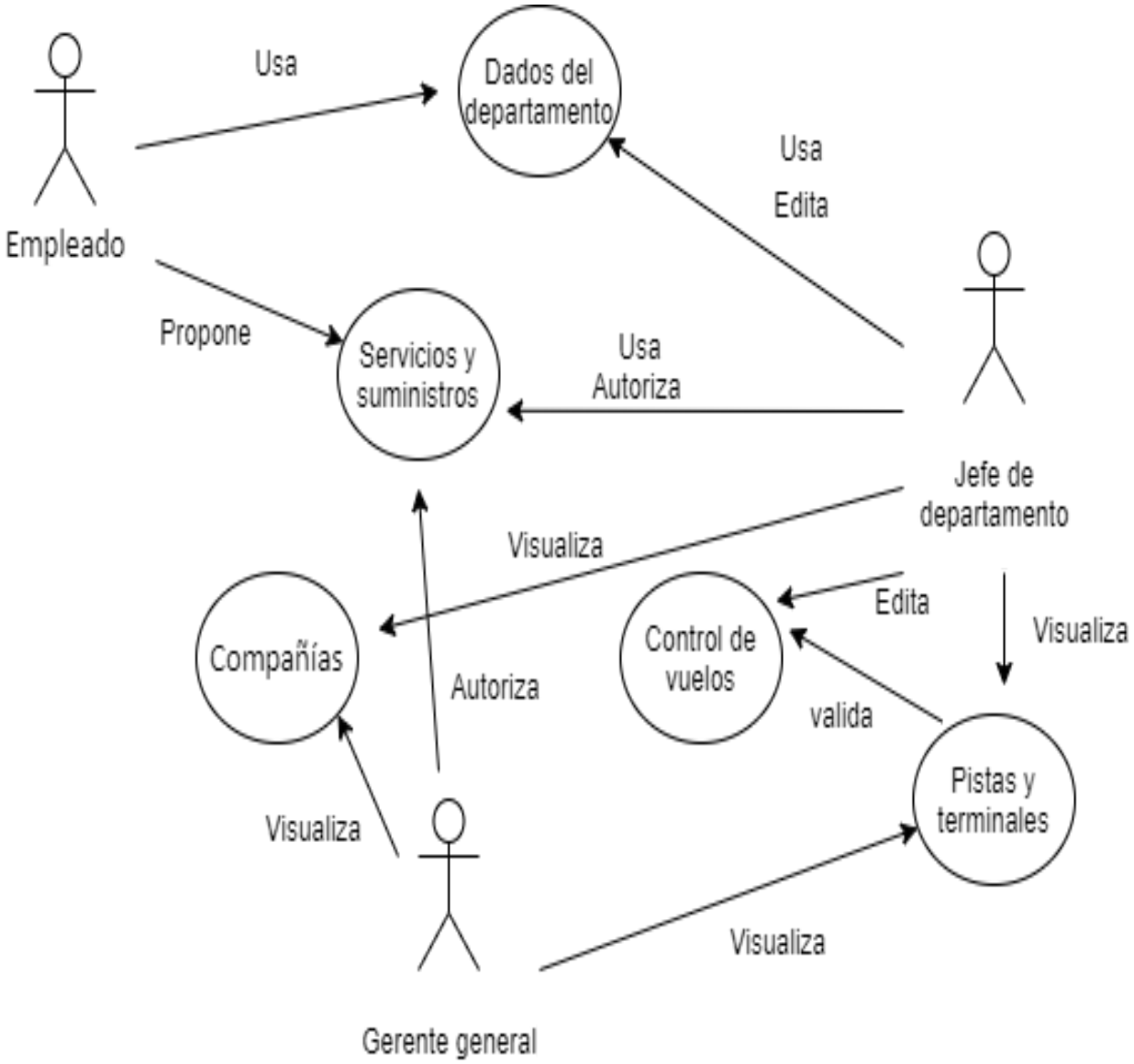

Screen of the view of a Head of Department:


linda
INICIO
VUELOS
TERMINALES
PISTAS
ESTACIONAMIENTO AVION
COMPAÑIAS
DEPARTAMENTO
ENTREGAS
FINANZAS
Aeropuerto de Guadalajara
INICIO
VUELOS
TERMINALES
PISTAS
ESTACIONAMIENTO AVION
COMPAÑIAS
DEPARTAMENTO
ENTREGAS
FINANZAS
Versión 1.0

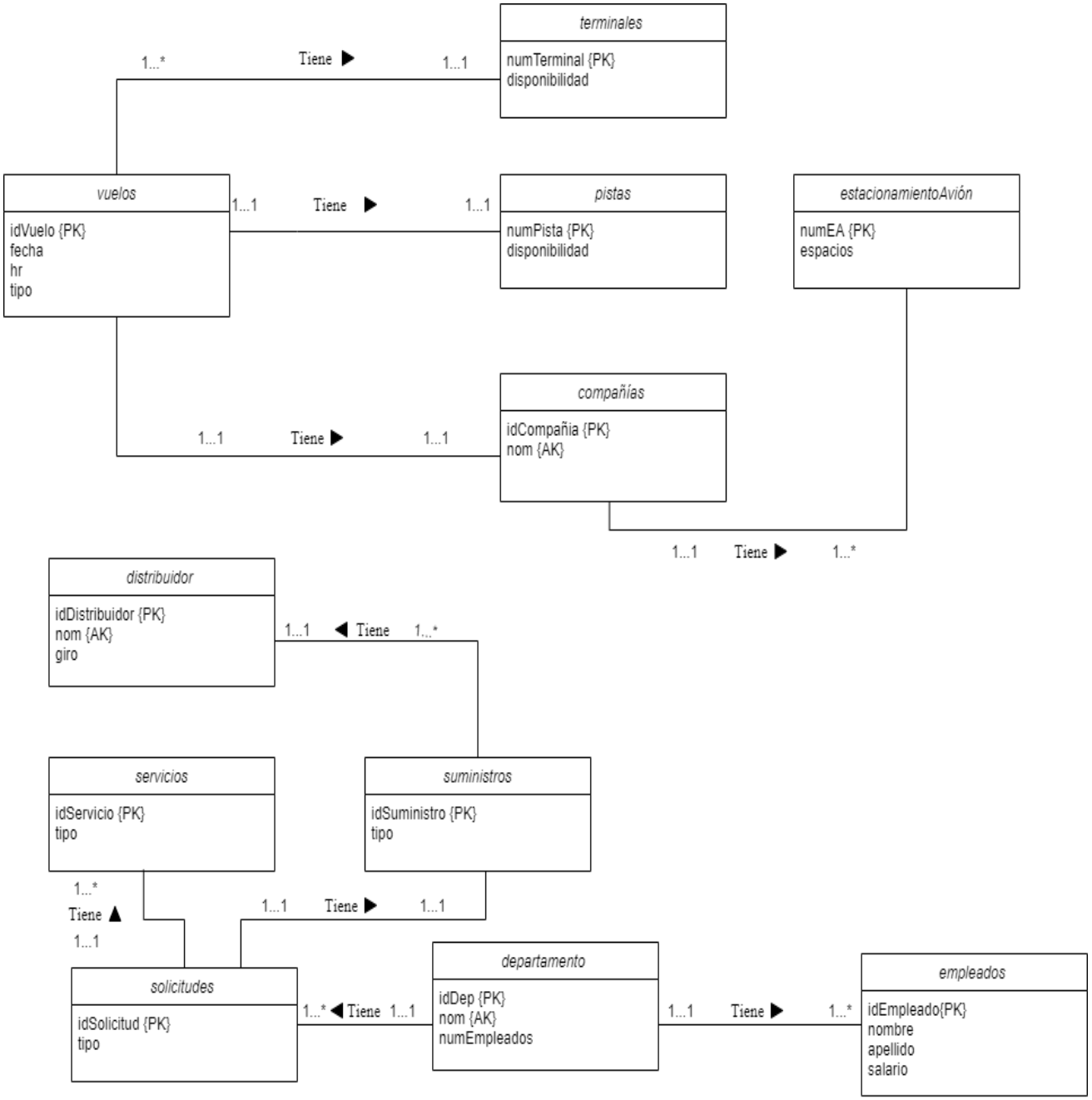
Information flow diagrams(https://drive.google.com/file/d/1g1WrISrNPoFdh6LJYKEQvHxLpkfYaXnA/view?usp=sharing)



Use Case Diagrams(https://drive.google.com/file/d/1efngOKkmhOo4K4UKa70KiMWUiBi0f1w8/view?usp=sharing)



Data model design(https://drive.google.com/file/d/1S_aA6V4QnWYt6KltJdT3_nY6BVDd0orU/view?usp=sharing)



## Phase II:

## Logical Design

### Relational Database Design

FLIGHTS (IdVuelo, idCompañia, numPista, numTerminal, Date, Hr, Type)
PK (IdVuelo)
FK (idCompany) → Companies (idCompany)
FK (tracknum) → Tracks (tracknum)
FK (numTerminal) → Terminals (numTerminal)

TERMINALS ( numTerminal, AvailabilityT)
PK (numTerminal)

TRACKS ( numTrack, AvailabilityP)
PK (numPista)

ESTACIONAMIENTOAVION (numEA, Espacios)
PK (name EA)

COMPANIES (idCompany, numEA, nombreC)
PK (idCompañia)
FK (numEA) → estacionamentoAvion (numEA)

DISTRIBUTOR (idDistributor, nameD, Business)
PK (distributor id)

SERVICES (idService, TypeS)
PK (idServicio)

SUMINISTROS (idSuministro, idDistributor, TipoSum)
PK (idSuministro)
FK (idDistributor) → Distribuidores (idDistributor)

REQUESTS(Requestid, Serviceid, Supplyid,Depid, date)
PK (idSolicitud)
FK ( idSupply) → Supply ( idSupply)
FK ( idService) → Service ( idService)
FK(idDep) → Department(idDep)

DEPARTMENT ( idDep, DepName, Employeeid, numEmployees)
PK ( idDep)
AND (NombreDep)
FK (idEmployee) → Employees (idEmployee)

EMPLOYEES ( Employee id, Name, Last name, idDep, Salary)
PK ( idEmpleado)
FK(idDep) → Department(idDep)

## functional dependencies

idCompany → numEA, nombreC

numTerminal → AvailabilityT

tracknum → AvailabilityP

numEA → Espacios

idDistributor → nombreD, Turn

idService → TypeS

idSuministro → TypeI

idRequest → idService, date

idDep → NameDep , numEmployees

employeeid → first name, last name, salary

## normalization

All of the tables below are in third normal form since there is no data redundancy and there is no transitive functional dependency on non-key attributes.

FLIGHTS

| IdVuelo | idCompany | numPista | numTerminal | Date | Hr | Type |
|---|---|---|---|---|---|---|

PK (IdVuelo)
FK (idCompany) → Companies (idCompany)
FK (tracknum) → Tracks (tracknum)
FK (numTerminal) → Terminals (numTerminal)

TERMINALS

| numTerminal | AvailabilityT |
|---|---|

PK (numTerminal)

CLUES

| numPista | AvailabilityP |
|---|---|

PK (numPista)

PLANE-PARKING

| named | spaces |
|---|---|

PK (name EA)

COMPANIES

| idCompany | named | nameC |
|---|---|---|

PK (idCompañia)
FK (numEA) → estacionamentoAvion (numEA)

DISTRIBUTOR

| idDistributor | name D | Tour |
|---|---|---|

PK (distributor id)

SERVICES

| idService | TypeS |
|---|---|

PK (idServicio)

SUPPLIES

| idSupplier | idDistributor | I'm like that |
|---|---|---|

PK (idSuministro)
FK (idDistributor) → Distribuidores (idDistributor)

REQUESTS

| idSolicitud | idService | idSupplier | idDep | date |
|---|---|---|---|---|

PK (idSuministro)
FK ( idSupply) → Supply ( idSupply)
FK (idService) → Service(idService)
FK(idDep) → Department(idDep)

DEPARTMENT

| idDep | DepName | employeeid | numEmployees |
|---|---|---|---|

PK ( idDep)
AND (NombreDep)
FK (idEmployee) → Employees (idEmployee)

EMPLOYEES

| employeeid | Name | Last name | idDep | Salary |
|---|---|---|---|---|

PK ( idEmpleado)
FK(idDep) → Department(idDep)

Script to create the complete database

```
create table VUELOS(
IdVuelo varchar(20) primary key,
idCompañia varchar(20) references Compañias (idCompañia),
numPista number(5) references Pistas (numPista),
numTerminal number(5) references Terminales (numTerminal),
Fecha varchar(20),
Hr varchar(20),
Tipo varchar(20)
);

create table TERMINALES(
numTerminal number(5) primary key,
DisponibilidadT varchar(20)
);

create table PISTAS (
numPista number(5) primary key,
DisponibilidadP varchar(20)
);

create table ESTACIONAMIENTOAVION (
numEA number(5) primary key,
Espacios varchar(20)
);

create table COMPAÑIAS(
idCompañia varchar(20) primary key,
numEA number(5) references estacionamientoAvion (numEA),
nombreC varchar(40)
);

create table DISTRIBUIDOR(
idDistribuidor varchar(20) primary key,
nombreD varchar(40),
Giro varchar(40)
);

create table SERVICIOS(
idServicio varchar(20) primary key,
TipoS varchar(20)
);
```

```
create table SUMINISTROS(
idSuministro varchar(20) primary key,
idDistribuidor varchar(20) references Distribuidores (idDistribuidor),
TipoSum varchar(20)
);

create table SOLICITUDES(
IdVuelo idSolicitud(20) primary key,
idServicio varchar(20) references Solicitud (idServicio),
idSuministro varchar(20) references Suministro (idSuministro),
idDep varchar(20) references Departamento (idDep),
Fecha varchar(20)
);
```

```sql
create table DEPARTAMENTO(
idDep varchar(20) primary key,
NombreDep varchar(40),
numEmpleados number(5)
);
```

```sql
create table EMPLEADOS(
idEmpleado varchar(20) primary key,
Nombre varchar(40),
Apellido varchar(40),
idDep varchar(20) references Departamento (idDep),
Salario number(5)
);
```

```sql
ALTER TABLE  "SOLICITUDES" ADD FOREIGN KEY ("IDSERVICIOS")
REFERENCES  "SERVICIOS" ("IDSERVICIO") ENABLE;
```

Script to insert records in all tables

```sql
INSERT INTO TERMINALES(numTerminal,DisponibilidadT )
VALUES (1, 'Disponible');

INSERT INTO TERMINALES(numTerminal,DisponibilidadT )
VALUES (2, 'Disponible');

INSERT INTO TERMINALES(numTerminal,DisponibilidadT )
VALUES (3, 'Disponible');

INSERT INTO PISTAS(numPista,DisponibilidadP )
VALUES (20, 'Disponible');

INSERT INTO PISTAS(numPista,DisponibilidadP )
VALUES (22, 'Disponible');

INSERT INTO PISTAS(numPista,DisponibilidadP )
VALUES (24, 'Disponible');

INSERT INTO ESTACIONAMIENTOAVION(numEA ,Espacios  )
VALUES (10, 'A');

INSERT INTO ESTACIONAMIENTOAVION(numEA ,Espacios  )
VALUES (12, 'B');

INSERT INTO ESTACIONAMIENTOAVION(numEA ,Espacios  )
VALUES (14, 'C');

INSERT INTO DISTRIBUIDOR(idDistribuidor,nombreD , Giro   )
VALUES ('1', 'Air Clenears', 'Limpieza');

INSERT INTO DISTRIBUIDOR(idDistribuidor,nombreD , Giro   )
VALUES ('2', 'La Buena Mesa', 'Alimentos');

INSERT INTO DISTRIBUIDOR(idDistribuidor,nombreD , Giro   )
VALUES ('3', 'Aguilas', 'Seguridad Privada');

INSERT INTO COMPAñIAS(idCompañia, numEA, nombreC)
VALUES ('1', 10, 'Interjet');

INSERT INTO COMPAñIAS(idCompañia, numEA, nombreC)
VALUES ('2', 12, 'Aeromexico');

INSERT INTO COMPAñIAS(idCompañia, numEA, nombreC)
VALUES ('3', 14, 'Volaris');
```

```sql
INSERT INTO VUELOS(IdVuelo, idCompañia, numPista, numTerminal, Fecha, Hr, Tipo)
VALUES ('SFO', '2', 22, 2, '10-05-2020', '21:00:00', 'Internacional');

INSERT INTO VUELOS(IdVuelo, idCompañia, numPista, numTerminal, Fecha, Hr, Tipo)
VALUES ('CDMX', '3', 24, 3, '11-05-2020', '09:00:00', 'Nacional');

INSERT INTO VUELOS(IdVuelo, idCompañia, numPista, numTerminal, Fecha, Hr, Tipo)
VALUES ('FCO', '1', 20, 1, '15-05-2020', '12:30:00', 'Internacional');
INSERT INTO SERVICIOS(idServicio,TipoS)
VALUES ('100', 'Inspeccion Salas');

INSERT INTO SERVICIOS(idServicio,TipoS)
VALUES ('200', 'Sanitarios');

INSERT INTO SERVICIOS(idServicio,TipoS)
VALUES ('300', 'Salas VIP');

INSERT INTO SUMINISTROS(idSuministro, idDistribuidor, TipoSum)
VALUES ('1', '1', 'Papel de Baño');

INSERT INTO SUMINISTROS(idSuministro, idDistribuidor, TipoSum)
VALUES ('2', '2', 'Charolas de Comida');

INSERT INTO SUMINISTROS(idSuministro, idDistribuidor, TipoSum)
VALUES ('3', '3', 'Detector de Metales');

INSERT INTO EMPLEADOS (idEmpleado, Nombre, Apellido, idDep, Salario)
VALUES ('A01', 'Linda', 'Abundis', '30', 65000 );

INSERT INTO EMPLEADOS (idEmpleado, Nombre, Apellido, idDep, Salario)
VALUES ('A02', 'Jose', 'Monterrubio', '35', 25000 );

INSERT INTO EMPLEADOS (idEmpleado, Nombre, Apellido, idDep, Salario)
VALUES ('A03', 'Dalia', 'Vazquez', '40', 55000 );

INSERT INTO DEPARTAMENTO (idDep, NombreDep, numEmpleados)
VALUES ('30', 'Sistemas', 1);

INSERT INTO DEPARTAMENTO (idDep, NombreDep, numEmpleados)
VALUES ('35', 'Finanzas', 1);

INSERT INTO DEPARTAMENTO (idDep, NombreDep, numEmpleados)
VALUES ('40', 'Administracion', 1);
```

```sql
INSERT INTO SOLICITUDES(idSolicitud, idSuministro, idDep, Fecha, idServicios)
VALUES ('1', '1', '30', '10-05-2020', '200');

INSERT INTO SOLICITUDES(idSolicitud, idSuministro, idDep, Fecha, idServicios)
VALUES ('2', '1', '35', '10-05-2020', '200');

INSERT INTO SOLICITUDES(idSolicitud, idSuministro, idDep, Fecha, idServicios)
VALUES ('3', '1', '40', '10-05-2020', '200');
```

Script of all SQL queries that are executed directly in the DBMS (Not in ASP, JSP or PHP) indicating who developed them:
Scheme in which it is developed → JM (Jesús Monterrubio)

-

```
select c.namec as "Companies that will make an international trip"
from OSCAR.Compañias c left join OSCAR.Vuelos v
on c.idCompany = v.idCompany
where v.Type = 'International'
group by c.nombreC;
```

| Compañías que realizarán un viaje Internacional |
|---|
| Interjet |
| Aeromexico |

2 filas devueltas en 0,01 segundos Descargar

-

```
select c.nombreC as "Companies", v.numTrack as "Track used"
from OSCAR.Vuelos v left join OSCAR.Compañias c
on v.idCompany = c.idCompany
group by v.trackNum, c.cName
order by v.numPista ASC;
```

| Compañías | Pista utilizada |
|---|---|
| Interjet | 20 |
| Aeromexico | 22 |
| Volaris | 24 |

3 filas devueltas en 0,01 segundos Descargar

-

```
select c.name as "Companies", ea.spaces as "Parking space"
from OSCAR.Aircraft Parking ea left join OSCAR.Companies c
on ea.Name = c.Name
group by ea.spaces, c.namec
order by ea.spaces DESC;
```

| Compañías | Espacio para estacionarse |
|---|---|
| Volaris | C |
| Aeromexico | B |
| Interjet | A |

3 filas devueltas en 0,01 segundos Descargar

-

```
select v.idVuelo as "Flight ID", p.runwayNum as "Runway", p.AvailabilityP as "Availability"
from OSCAR.Pistas p left join OSCAR.Vuelos v
is p.numPista = v.numPista
group by v.flightID, p.runwayNum, p.AvailabilityP
order by p.numPista ASC;
```

| ID del Vuelo | Pista | Disponbilidad |
|---|---|---|
| FCO | 20 | Disponible |
| SFO | 22 | Disponible |
| CDMX | 24 | Disponible |

3 filas devueltas en 0,00 segundos Descargar

Database instance: Tables with their records (tuples)

FLIGHTS

| IDVUELO | IDCOMPAÑIA | NUMPISTA | NUMTERMINAL | FECHA | HR | TIPO |
|---|---|---|---|---|---|---|
| SFO | 2 | 22 | 2 | 10-05-2020 | 21:00:00 | Internacional |
| CDMX | 3 | 24 | 3 | 11-05-2020 | 09:00:00 | Nacional |
| FCO | 1 | 20 | 1 | 15-05-2020 | 12:30:00 | Internacional |

3 filas devueltas en 0,04 segundos Descargar

TERMINALS

| NUMTERMINAL | DISPONIBILIDADT |
|---|---|
| 2 | Disponible |
| 3 | Disponible |
| 1 | Disponible |

3 filas devueltas en 0,02 segundos Descargar

CLUES

| NUMPISTA | DISPONIBILIDADP |
|---|---|
| 20 | Disponible |
| 22 | Disponible |
| 24 | Disponible |

3 filas devueltas en 0,02 segundos Descargar

PLANE PARKING

ESTACIONAMIENTO AVION


COMPANIES

| IDCOMPAÑIA | NUMEA | NOMBREC |
|---|---|---|
| 1 | 10 | Interjet |
| 2 | 12 | Aeromexico |
| 3 | 14 | Volaris |

3 filas devueltas en 0,02 segundos Descargar

DISTRIBUTOR

| IDDISTRIBUIDOR | NOMBRED | GIRO |
|---|---|---|
| 1 | Air Clenears | Limpieza |
| 3 | Aguilas | Seguridad Privada |
| 2 | La Buena Mesa | Alimentos |

3 filas devueltas en 0,01 segundos Descargar

SERVICES

| IDSERVICIO | TIPOS |
|---|---|
| 100 | Inspeccion Salas |
| 300 | Salas VIP |
| 200 | Sanitarios |

3 filas devueltas en 0,02 segundos Descargar

SUPPLIES

| IDSUMINISTRO | IDDISTRIBUIDOR | TIPOSUM |
|---|---|---|
| 1 | 1 | Papel de Baño |
| 2 | 2 | Charolas de Comida |
| 3 | 3 | Detector de Metales |

3 filas devueltas en 0,02 segundos Descargar

REQUESTS

| IDSOLICITUD | IDSUMINISTRO | IDDEP | FECHA |
|---|---|---|---|
| 1 | 1 | 30 | 10-05-2020 |
| 3 | 1 | 40 | 10-05-2020 |
| 2 | 1 | 35 | 10-05-2020 |

3 filas devueltas en 0,02 segundos Descargar

DEPARTMENT

| IDDEP | NOMBREDEP | NUMEMPLEADOS |
|---|---|---|
| 30 | Sistemas | 1 |
| 35 | Finanzas | 1 |
| 40 | Administracion | 1 |

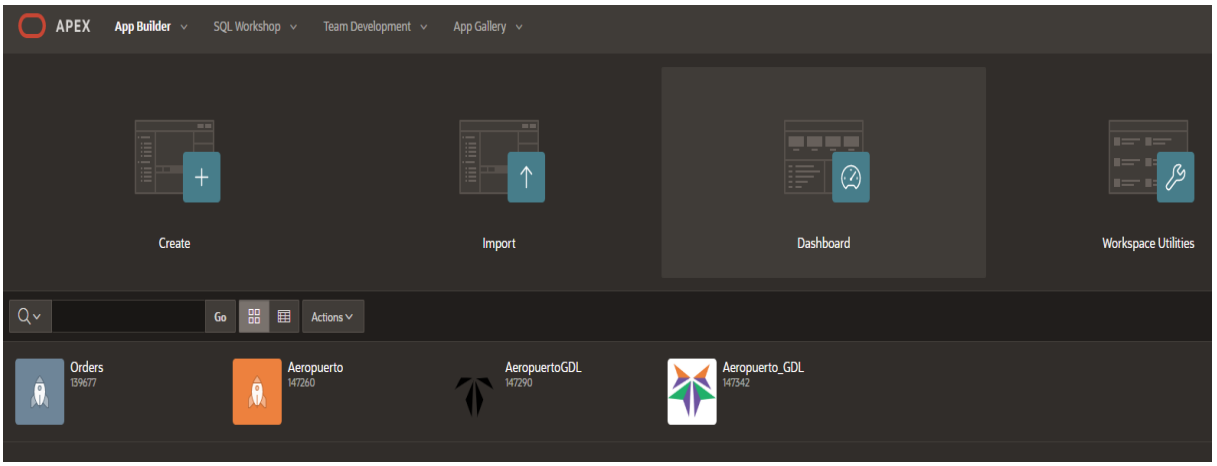
3 filas devueltas en 0,01 segundos Descargar

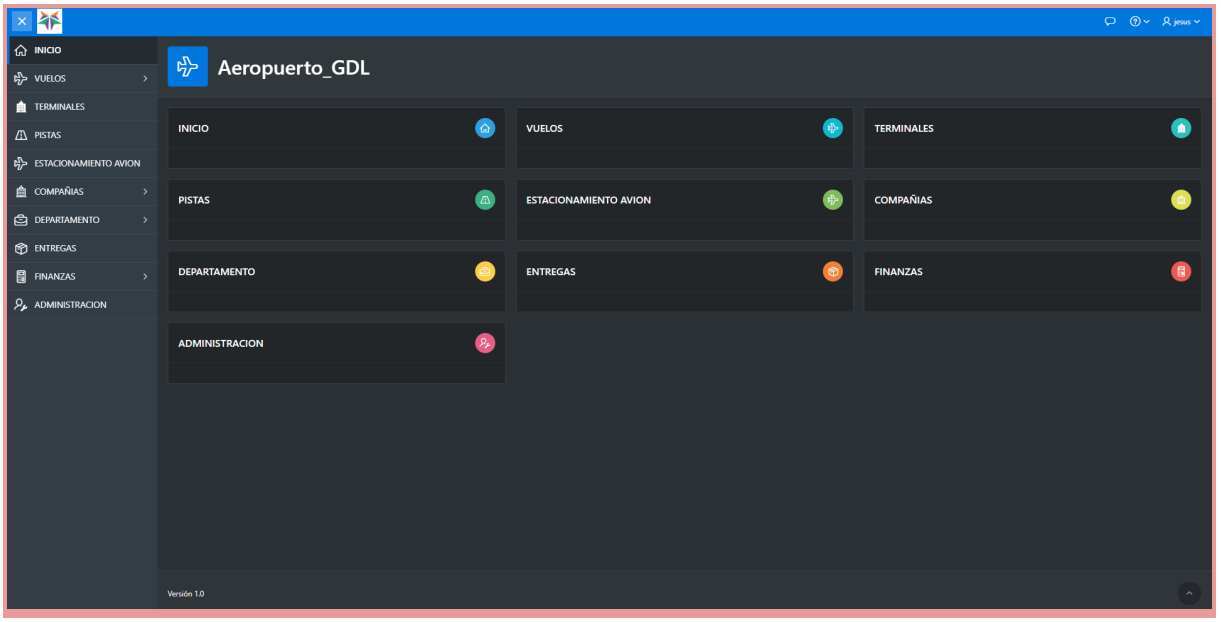
EMPLOYEES

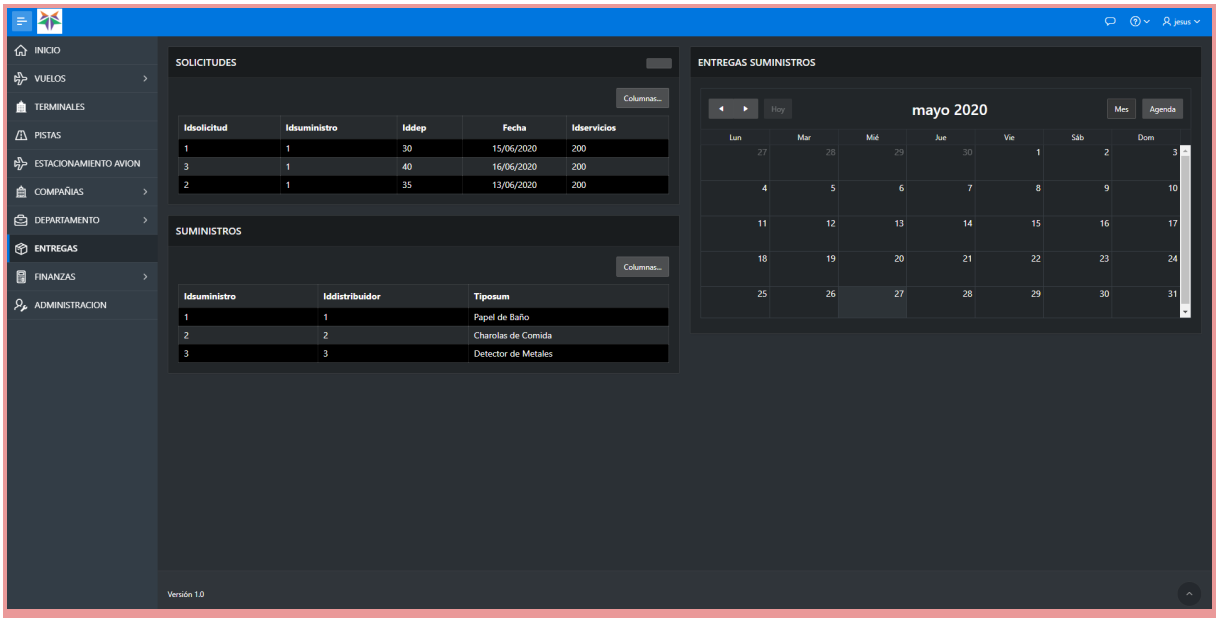
| IDEMPLEADO | NOMBRE | APELLIDO | IDDEP | SALARIO |
|---|---|---|---|---|
| A01 | Linda | Abundis | 30 | 65000 |
| A02 | Jose | Monterrubio | 35 | 25000 |
| A03 | Dalia | Vazquez | 40 | 55000 |

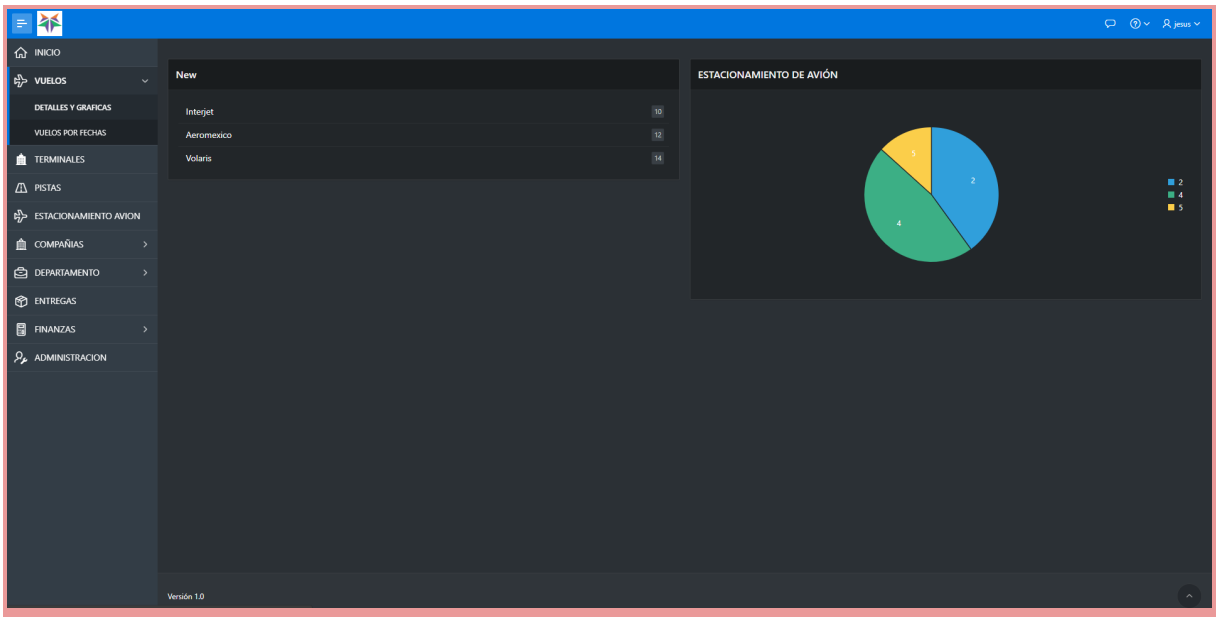
3 filas devueltas en 0,04 segundos Descargar

Prototype of the application that must present the corporate image, user login and consultation of the included catalogs





jesus
INICIO
VUELOS
TERMINALES
PISTAS
ESTACIONAMIENTO AVION
COMPAÑIAS
DEPARTAMENTO
ENTREGAS
FINANZAS
ADMINISTRACION
Aeropuerto_GDL
INICIO
VUELOS
TERMINALES
PISTAS
ESTACIONAMIENTO AVION
COMPAÑIAS
DEPARTAMENTO
ENTREGAS
FINANZAS
ADMINISTRACION
Versión 1.0


jesus
INICIO
VUELOS
TERMINALES
PISTAS
ESTACIONAMIENTO AVION
COMPAÑIAS
DEPARTAMENTO
ENTREGAS
FINANZAS
ADMINISTRACION
SOLICITUDES
Columnas...
Idsolicitud Idsuministro Iddep Fecha Idservicios
1 1 30 15/06/2020 200
3 1 40 16/06/2020 200
2 1 35 13/06/2020 200
SUMINISTROS
Columnas...
Idsuministro Iddistribuidor Tiposum
1 1 Papel de Baño
2 2 Charolas de Comida
3 3 Detector de Metales
ENTREGAS SUMINISTROS
Hoy
mayo 2020
Mes
Agenda
Lun Mar Mié Jue Vie Sáb Dom
Versión 1.0


jesus
INICIO
VUELOS
DETALLES Y GRAFICAS
VUELOS POR FECHAS
TERMINALES
PISTAS
ESTACIONAMIENTO AVION
COMPAÑIAS
DEPARTAMENTO
ENTREGAS
FINANZAS
ADMINISTRACION
New
Interjet 10
Aeromexico 12
Volaris 14
ESTACIONAMIENTO DE AVIÓN
Versión 1.0

## Phase III:

## Implementation

In the development of our project we use few alternatives for the creation and customization of our database. To be very precise, as the main technology we use the Oracle APEX tool for everything we create, including tables, queries, views, interactions and everything else that our project manages. The reasons why we decided to use this technology are:

- Rich interface.
- Power in data management and application creation.
- High level functionalities.
- Flexible with users and administrators.
- Effective security for project protection.

These reasons why we chose to use Oracle APEX are some of the benefits that our project obtained at the time of its development and implementation.

## Repository to Download the Application

https://github.com/OscarFM014/AeropuertoGuadalajara

## Repository to Download Video

https://drive.google.com/drive/folders/1PjjbPlaTBHHSxuo-dEWFKNleMuyRA1nQ?usp=sharing

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