## Identification of the problem

A program that allows to manage the companies of a business holding company, and register the associated companies, and the functionalities according to the type of company. They also need to be able to fill out surveys and calculate taxes. Among other specific ways of looking for information.

## Identification of entities, characteristics and relationships

- Holding: It is the company that owns all the others.
- Company: All companies have a building
- Building: It has a number of floors, 20 cubicles on each floor.
- Service company: Inherit from the company class. It has surveys
- Company of education: Inherit of service company.
  - approval record
  - accredited years
  - national ranking
  - director
  - sector to which it belongs
  - students
  - students from stratum 1 and 2.
- Public Services Company: Inherit from service company.
  - service that provides
  - subscribers
  - subscribers of strata 1 and 2.
- Poll:
  - Service qualification
  - · response time rating
  - qualification to the balance cost benefit.
- Technology company: Inherit from service company.
- Manufacturing company: Inherits company.
- Medicines company: Inherit from manufacturing company.
  - Invima registration
  - · sanitary registration
  - registration status
  - · expiration date
  - Company modality
- Food company: Inherit from manufacturing company.
  - whether it exports or not
  - sanitary registration
  - kind of product.

## **Functional Requirements**

RF#1	Tax pro culture.
SUMMARY	The system allows to calculate the tax of pro culture.
INPUT	
Educative company: total students of stratum 1 and 2.	
Public Company: Total subscriptors of stratum 1 and 2	
OUTPUT	
The percentage of tax pro culture of the company	

RF#2	Service of water for three
SUMMARY	The system allows to make a service in the water used have to be payed with
	threes
INPUT	
Agua en litros consumida	
OUTPUT	
Cantidad de árboles a sembrar	

RF#3	R# 3 Registrar nueva empresa.	
SUMMARY	The system allows to register a company	
INPUT		
name, nit, address, phone, amount of employeer, active value, inscription date, legal name,		
type of organization. Another inputs that depens od the type of organization.		
OUTPUT		
A company created.		

RF#4	List of the information registered
SUMMARY	The systems allows to make a list with the information about the companies and
	their characteristics
INPUT	
OUTPUT	
The list with the information	

RF#5	Add a company of manufacturing of food
SUMMARY	The systems allows to add a nwe company of manufacturing of food
INPUT	
Neccesary requirements to créate a food company.	
OUTPUT	
A company of food created.	

RF#6	Registered polls
SUMMARY	The system allows to register a pollo f satisfaction of the client about th service, the
	answer ime and relation of cost and Benefit.
INPUT	
Answer of the client	
OUTPUT	
Satisfaction of the client	

RF#7	Registered of companies of public services
SUMMARY	The system allows to register a new company of public services with the attributes of a
	company and their specific attributes.
INPUT	
If is sewerage, aqueduct or energy	
OUTPUT	
A new company of public services	

RF#8	Service of energy for threes
SUMMARY	The system allows to calculate the quantity of threes to born about the consume of
	energy
INPUT	
Consume of energy on kilowatts	
OUTPUT	
Threes to plant	

RF#9	Assing a cubicule to an employee
SUMMARY	The system allows to add an employee to a cubicule
INPUT	
An employee	
OUTPUT	
A new employee assign to the cubicule	

RF#10	R# 10 Buscar extensión de empleado	
	'	
SUMMARY	The system allows to search the extension of the employee about the name:	
	L: search in the first floor, and the first columna.	
	Z: search in the first and last floor, and in the reverse diagonal.	
	X: search in the principal diagonal and in the resverse diagonal.	
	O: search in the first floor and columna, and in the last floor and column	
	E: search in the buil on spiral, only can be if the floors of the build are impar.	
INPUT		
Nombre del em	Nombre del empleado	
OUTPUT	OUTPUT	
The extensión o	The extensión of the employee	

RF#11	Search the email of the employeer
SUMMARY	The system allows to search the emails of all the employees and its do it on spiral.
INPUT	
ОИТРИТ	
Se han recolectado los correos de los empleados.	

## Trazability

RF	Métodos
1.	Taxes:
	+calculatedProCulture(): double
2	Conpsuptiom:
	+ calculatedThingXThree (): int
3	Company:
	+ Company(String nameComercy, int amountEmployeer, double amountActives, String
	inscription, String nit, String address, String phone, char typeOrganization, String
4	legalName,Building build):
4	Holding:
5	+ showInformation() String  Food:
3	
	+Food(String nameComercy, int amountEmployeer, double amountActives, String inscription, String nit, String address,String phone, char typeOrganization, String
	legalName,Building build,String importer,String maker,String conservation)
	regun vanie, Bunding bund, String importer, String maker, String conservation)
6	Holding:
	+ getCompanyWithPollsInformation(String nameL) : String
7	Public:
	Public(String nameComercy, int amountEmployeer, double amountActives, String
	inscription, String nit, String address, String phone, char typeOrganization, String
	legalName,Building build,String servicePublic,int suscriptorsTotally, int
	suscriptorsOneAndTwo):
8	Technology:
	+ calculatedThingXThree(): int
	Invima:
9	+ calculatedThingXThree(): int
9	<b>Holding:</b> + addEmployeerToCubicules(String nameCompany,String nameEmploy,String
	positionEmploy,String emailEmploy): void
10	Holding:
10	+showBuildingL(String nameK,String nameEmploy) : String
	+ showBuildingX(String nameK,String nameEmploy): String
	+ showBuildingO(String nameK,String nameEmploy): String
	+ showBuildingE(String nameK,String nameEmploy): String
	+ showBuildingZ(String nameK,String nameEmploy) : String
11	Holding:
	+showBuildingSpiral: String