**Data base design with data protection in mind.**

**INTRODUCTION**

The aim of this report is to explain how I ‘m going to store the data on the database. First explain in writing the ideas, after that, create a diagram showing where each data goes and the relations between them. We need to protect the data base following the gdpr. The contents of this report is the database design and protection measures.

**What needs the company?**

ABC needs a platform that manages different data from two main sources: staff and customers. On the staff side, the company has personal data such as ID cards, social security numbers, bank details, address, telephone number, email address, medical leave data and biometric data such as fingerprints.

**Steps to consider**

The staff data is stored in the in-house database, while the customer data is stored in an external storage system. The data is linked through the use of unique identifiers such as customer ID and employee ID.

We can encrypt some data from the customers and staff. So it is difficult to read the data stored.

Access to the data is controlled through the use of login credentials and encrypted communication channels. The data is also automatically entered and deleted as needed to keep the database up-to-date.

We can use several servers and not just one. So that everything is not centralized and it is more difficult to lose all the data. If we use several servers, the data is distributed among them and in case one fails, we have the others as backup.

We will have to create a schema to know in which area is each data that is stored in the database and that is easily and quickly accessible to the administrator at the time of modifying, creating or deleting any stored data.

We will use encryption for the most sensitive data. Since it is more complicated if, if we suffer a hack attack, the information can be easily visible and stolen.

Only data controllers will have access to the database, they will use verified and encrypted accounts when working.

We will have to create an automatic program that is able to keep the database clean, without unnecessary information. Periodically check if a client or a worker is still with us so that the program will remove him/her from the database.

**Conclusion and recommendations**

It is important to consider what we are going to store where and how. Also, it is mandatory to use encryption for storing some types of data. We have to follow the General Data Protection Regulation.

The use of automatic software to know what data to keep and what data to delete, both from customers and workers.

The agency will only be able to access certain types of ABC company data that are relevant for the moment of working with the data. They will not have access to all areas of the company as this is not necessary.