

Storing and Retrieving Data – Final project



Group 15

Nuno Penim m20210998
Paulo Oliveira m20211002
Gonalo Gomes m20211007

Nova Information Management School
Master's Degree in Data Science and Advanced Analytics
2021/2022

TelePal

For this final Storage and Retrieving Data Project, our group decided to create a fictitious Portuguese telecommunication company called “TelePal”, located in Lisbon, Portugal.

This company was founded in January 2019 by an ambitious group of recently graduated Portuguese students from NOVA IMS, with a very conservative initial investment.

This company’s services include mobile networks and fixed call networks with different rates, usually in minutes, SMS plafonds, Mobile and fixed Internet access, with different speeds, and even television, and its services only cover the north and center of Portugal.

In TelePal, a client pays for a service, through a contract, for a certain period of time.

Associated with this contract, some billing will occur monthly, as these plafond services have a monthly associated price. However, the contracted service may contain some changes derived from the needs and interests of each client.

In addition, each client assigns a rating between 0 and 5 according to their degree of satisfaction with the service provided by the company, declared in each contract. These ratings can be attributed to the same service, at different times by the client, thus allowing the company to consult a history of them and thus verify whether the changes to the service made by the company satisfied the customer concerned.

Some discounts can be applied, be it a sale for a lower price, or discounts for a long term client. Nevertheless, these discounts are not frequent because the company is at a very early stage and has not yet defined long-term customers. Every contract is associated with an invoice with the process details, which may take a few days to be issued by the company.

In this Invoice, higher prices than the base price can often occur, specially if the client has exceeded his monthly costs.

This company currently has three public service desks located in Porto, Lisbon and Setúbal, providing technical assistance in the areas of operation of the company, through technicians specialized in telecommunications, while keeping records of assistance and maintenance that were solicited by the clients.

Despite having already two years of existence, TelePal is still in the process of acquiring market knowledge, as well as reevaluating its services through the analysis of their customers feedback on the services provided by the company. This strategy was reinforced after the sudden emergence of the global pandemic caused by covid-19 that made it impossible for the company to grow as initially planed by the founders.

In spite of this, TelePal plans to escalate rapidly in the coming months with marketing campaigns focused on acquiring new customers and, ultimately, expand at the national level by creating at least one more headquarter in the southern part of the country.

Entity Relationship Diagram (ERD)

