
Software Requirements Specification

for

TELEMARKET

Version 1.0 approved

Prepared by Mattia Nicola Tamburrino

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1. Introduction

1.1 Purpose

The purpose of this document is to present a detailed description of the web application Telemarket. It will explain the purpose and features of the web application and the interfaces of the web application.

1.2 Document Conventions

This Document was created based on the IEEE template for System Requirement Specification Documents.

1.3 Intended Audience and Reading Suggestions

- *Students*
- *Developers*
- *Project Managers*

1.4 Product Scope

Telemarket it's a web application [a dashboard] meant to be used by the workers of a call center, in particular they can use a system that organizes a call with the client and furthermore complete a form dedicated to describe how the call went. There is also a section dedicated to the visualization of corporations, products, phone calls...everything related to the call center.

1.5 References

GitHub repository:

<https://github.com/nandotiamat/callcenter>

IEEE Template for System Requirement Specification Documents:

<https://goo.gl/nsUFwy>

2. Overall Description

2.1 Product Perspective

Telemarket is a dashboard created to support and ease the work of a standard call center.

2.2 Product Functions

Basic Functions:

- *Authentication via JWT [LOGIN, LOGOUT]*

Admin Side:

- *Create, update and delete the affiliated corporations*
- *Create, update and delete products advertised by corporations*
- *Create, update and delete the clients data*
- *Create, update and delete the workers data*

Employee Side:

- *View a list of phone calls with related outcomes*
- *View affiliated corporations*
- *View advertised products*
- *View clients data*
- *Organize via the system a sale*

2.3 User Classes and Characteristics

- *Employee*
- *Admin*

2.4 Operating Environment

- *Windows 2000*
- *Windows XP*
- *Windows Vista*
- *Windows 7*
- *Windows 8*
- *Windows 10*
- *Mac OS X*
- *Linux*

2.5 Design and Implementation Constraints

- *Languages: ReactJS [HTML, PHP, Javascript]*
- *Database: MySQL PhpMyAdmin*
- *Communication Protocol: HTTP*
- *Server-Side technology: PHP*

2.6 User Documentation

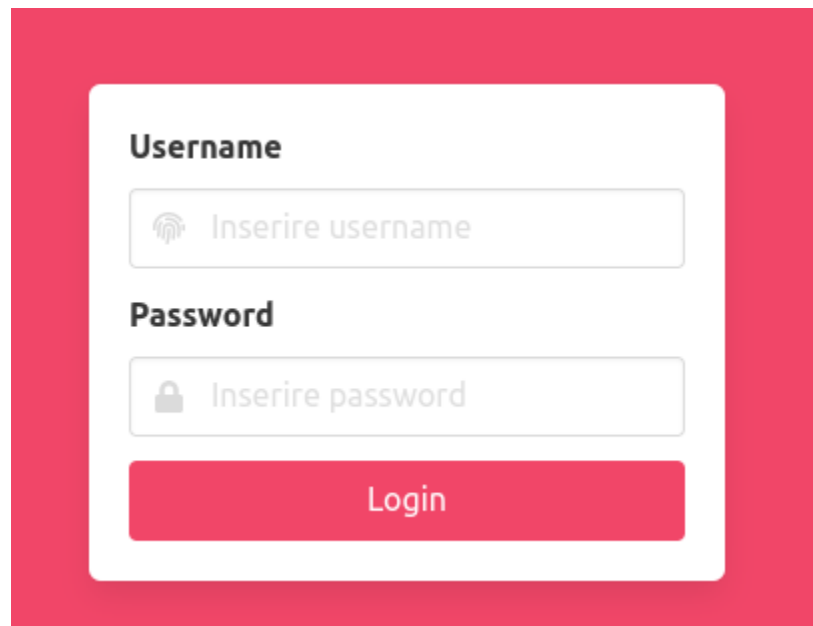
Refer to “*TELEMARKET Guida all'installazione.docx*”

2.7 Assumptions and Dependencies

Telemarket is developed using ReactJS and PHP. It requires, to be runned locally, NodeJS and XAMPP.

3. External Interface Requirements

3.1 User Interfaces

A login form with a white background and rounded corners, centered on a solid red background. The form contains two input fields: the first is labeled 'Username' and has a placeholder 'Inserire username' with a fingerprint icon; the second is labeled 'Password' and has a placeholder 'Inserire password' with a lock icon. Below the fields is a red button with the text 'Login' in white.

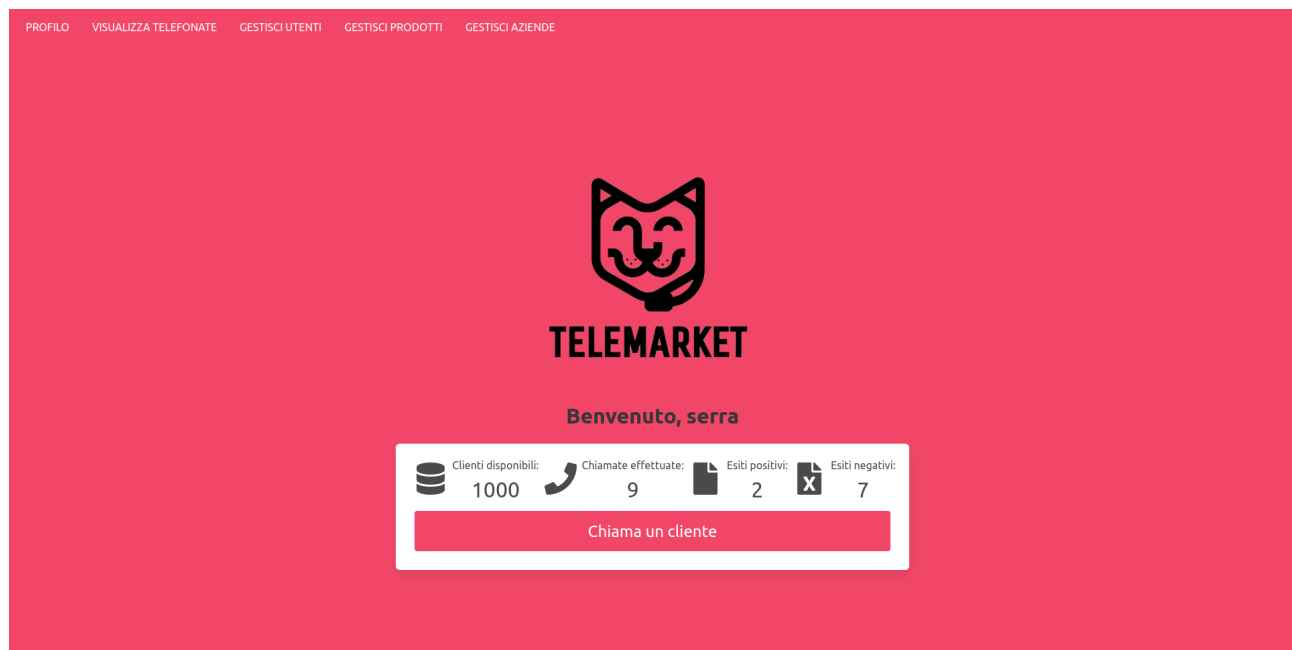
Username

Inserire username

Password

Inserire password

Login





TELEMARKE



Eduard Jardin

Numero di telefono: +237 688 552 6844

Data di nascita: 1974-05-08



Zoomzone

Prodotto: Webcam high definition

Descrizione: Hai fatto una quantità enorme di meeting in smart working ma la tua webcam integrata non è all'altezza? A soli 20 euro puoi fare un grosso salto di qualità.

CHIAMA CLIENTE E COMPILA ESITO



Compila esito

☐ Prodotto venduto

Descrizione generica

Non è interessato ▼























Conferma

Dipendenti di TELEMARKE


ID	Nominativo	Username	Data di nascita	Salario	Admin	Operazioni	
1	Giovanni Serra	serra	2000-05-07	3000	✓		
33	Maurice Calamaro	maurice	1970-03-03	1400	✓		
4	Daven Marfield	dmarfield3	1994-10-31	1164			
14	Irene Borrel	iborreld	1995-03-18	1220			
15	Tess Stokell	tstokelle	1984-01-02	1296			
17	Dewitt Spragge	dspraggeg	1984-06-22	1145			
19	Barry Standish	bstandishi	1961-09-11	1137			
20	Berton Arendt	barendtj	1967-01-26	1141			
21	Florian Pettisall	fpettisallk	1989-01-04	1141			
25	Gweneth Bryers	gbryerso	1963-01-20	1065			
29	Ida De Vaan	vandersaar	1980-07-19	1085			
31	Carroll Goodwins	cgoodwins0	1964-06-13	1195			
32	Max Fix	maxfix	1969-10-16	700			
35	miles davis	miles	1926-05-26	1000			

Crea dipendente

Prodotti sponsorizzati

ID Prodotto	Nome	Descrizione	Azienda	Operazioni
1	Oscilloscopio digitale	Oscilloscopio di ultimissima generazione, a soli 999 euro. I cannoncini che eseguono un gioco ballistico per eccitare le molecole di fosforo sono un lontano ricordo.	Browsebug	 
2	Tastiera ergonomica	Tendinite acuta? Dolore ai polsi? Prova questa nuova tastiera ergonomica che allevierà tutti i tuoi dolori.	Forint	 
3	Ponteggio	Hai bisogno di un ponteggio per iniziare la tua attività edile? Ti facciamo noi un'offerta che non potrai rifiutare.	Skipstorm	 
4	SIM 100GB	Telefonia mobile, 100GB al mese con minuti ed sms illimitati a soli 4,99 euro!	Vimbo	 
5	Abiti vintage	Vuoi fare un tuffo nel passato a basso prezzo? I nostri vestiti fanno al caso tuo.	Zava	 
6	Scarpe da corsa antinfortunistiche	Le nostre scarpe da corsa sono un capolavoro, corri veloce come il vento e non accusi nessun dolore per lo sforzo, provare per credere.	Ailane	 
7	Risme di fogli	Sei il capo di un ufficio dove le stampanti non hanno un secondo di tregua? Sicuramente avrai bisogno di una quantità enorme di fogli.	Mynte	 
8	Laptop aziendale	Sei una azienda che lavora nel tech business e devi fornire dei computer potenti ai tuoi dipendenti? Noi possiamo fornirti una grande quantità di macchine da guerra ad un prezzo conveniente.	Linktype	 
10	Webcam high definition	Hai fatto una quantità enorme di meeting in smart working ma la tua webcam integrata non è all'altezza? A soli 20 euro puoi fare un grosso salto di qualità.	Zoomzone	 
11	Borraccia	Oggi più che mai è importante avere il pollice verde, smettila di usare bottiglie di plastica e acquista la nostra borraccia.	Linkbridge	 
12	Black Strat	Black Strat di David Gilmour solo da Telemarket, a soli 100 euro!.	Zoomzone	 

Aggiungi prodotto



Nome

Cognome

Username

Data di nascita

mm / dd / yyyy

Stipendio

Password

È admin? ☐

Create User

3.2 Hardware Interfaces

No particular Hardware requirements.

3.3 Software Interfaces

Database: MySQL PhpMyAdmin.

3.4 Communications Interfaces

Communication protocol: HTTP.

Web Authentication, Session Management, and Access Control

In Telemarket it is actually necessary to maintain auth "sessions", so once a user logs in, he doesn't have to log in over and over for each subsequent "http" request made to the webserver. There are mainly two approaches to session management,

- Session or cookie based approach
- JWT-based approach (JSON Web Tokens).

Telemarket uses a JWT-based approach for session management. JWT contains JSON objects which have the information that needs to be shared. Each JWT is also signed using cryptography (hashing) to ensure that the JSON contents (also known as JWT claims) cannot be altered by the client or a malicious party. A JWT contains three parts:

- Header: Consists of two parts:
 - The signing algorithm that's being used
 - The type of token, which, in this case, is mostly "JWT"
- Payload: The payload contains the claims or the JSON object.
- Signature: A string that is generated via a cryptographic algorithm that can be used to verify the integrity of the JSON payload.

Encoded

PASTE A TOKEN HERE

```
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.7u0ls1snw4tPEzd0JTFaf19oXo0vQYtowiHEAZnan74
```

Decoded

EDIT THE PAYLOAD AND SECRET

HEADER: ALGORITHM & TOKEN TYPE

```
{
  "alg": "HS256",
  "typ": "JWT"
}
```

PAYLOAD: DATA

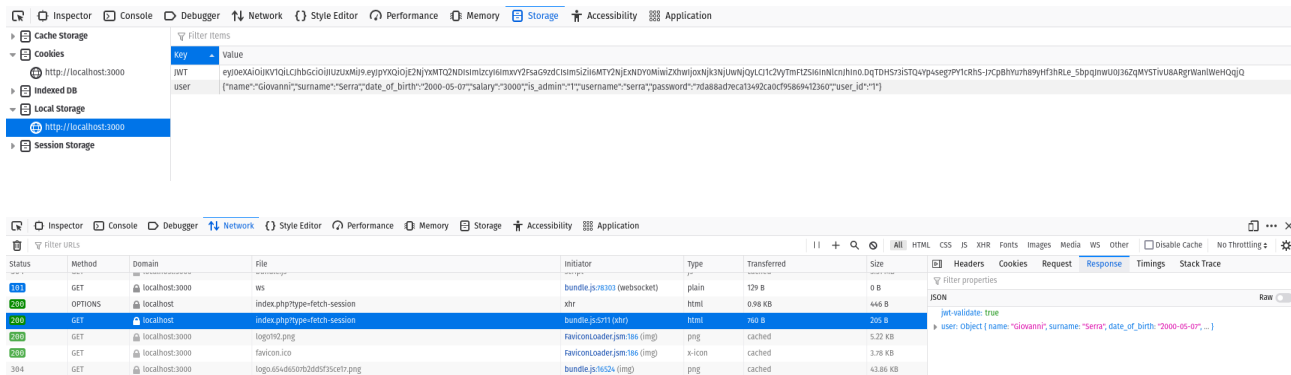
```
{
  "sub": "1234567890",
  "name": "John Doe",
  "iat": 1516239022
}
```

VERIFY SIGNATURE

```
HMACSHA256(
  base64UrlEncode(header) + "." +
  base64UrlEncode(payload),
  tyk123
) ☐ secret base64 encoded
```

The approach used is as follows :

If login is successful , the web server generates a JWT and sends it back to the client. When the client receives a JWT, it will store it(using **LocalStorage** in React) and use it with every future request to the application. The JWT will be created with PHP and Composer, using the Firebase PHP-JWT library, a third-party library that simplifies working with JWTs; the creation phase is managed in the index.php file (see `$_GET["type"] == "user-login"`). At the end of this phase, the user and its jwt will be returned , and saved in the local storage.



At this point, validation (also handled in index.php) is called up at each page change see `$_GET["type"] == "fetch-session"`). Upon logout, both user and jwt are removed from local storage, and the user is logged out and redirected to the dashboard.

4. System Features

4.1 System Feature 1

Login

4.2.1 Description and Priority

Each user can access to the web application by inserting their credentials

4.2.2 Stimulus/Response Sequences

If the credentials are correct, the system will redirect the user to his dashboard of competence; otherwise a message of error will be shown.

4.2.3 Functional Requirements

All datas on the form should be coherent, so empty fields are not allowed.

4.2 System Feature 2

Call a customer

4.2.1 Description and Priority

Each employee can use the sale provided by the system to call the customer, after that the employee can complete a form.

4.2.2 Stimulus/Response Sequences

If the submit button was pressed, the system will redirect the user to his dashboard of competence and an alert will pop up; otherwise an alert with an error message will pop up.

4.2.3 Functional Requirements

All data on the form should be coherent.

4.3 System Feature 3

Add a new employee

4.3.1 Description and Priority

Admin can add a new employee by filling out the form with his credentials.

4.3.2 Stimulus/Response Sequences

If the credentials are correct, the system will return a message of confirmation; otherwise a message of error will be shown.

4.3.3 Functional Requirements

All data on the form should be coherent, so empty fields are not allowed. Already in use email and username can't be chosen.

4.4 System Feature 4

Visualize every phone calls made by the employee

4.4.1 Description and Priority

Every employee logged can visualize all the data related to every phone call he made.

4.4.2 Stimulus/Response Sequences

If the employee is currently logged, he will see a table filled with informations about his latest phone calls. If he hasn't any of it, the table will be empty.

4.4.3 Functional Requirements

The user must be logged, otherwise he will be redirected to the login page.

4.5 System Feature 5

Create a new product advertised by a corporation

4.5.1 Description and Priority

Admin can create a new product through a form.

4.5.2 Stimulus/Response Sequences

If the data are correct, the system will return a message of confirmation; otherwise a message of error will be shown.

4.5.3 Functional Requirements

All data on the form should be coherent.

4.6 System Feature 6

Add a new Corporation

4.6.1 Description and Priority

Admin can add a new corporation by filling out the form with required data.

4.6.2 Stimulus/Response Sequences

If the data are correct, the system will return a message of confirmation; otherwise a message of error will be shown.

4.6.3 Functional Requirements

All data on the form should be coherent, so empty fields are not allowed.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

No particular performance requirements.

5.2 Safety Requirements

JWT Auth.

5.3 Security Requirements

No particular security requirements.

5.4 Software Quality Attributes

Thanks to its intuitive interface, Telemarket can be used both by common users and experts.

5.5 Business Rules

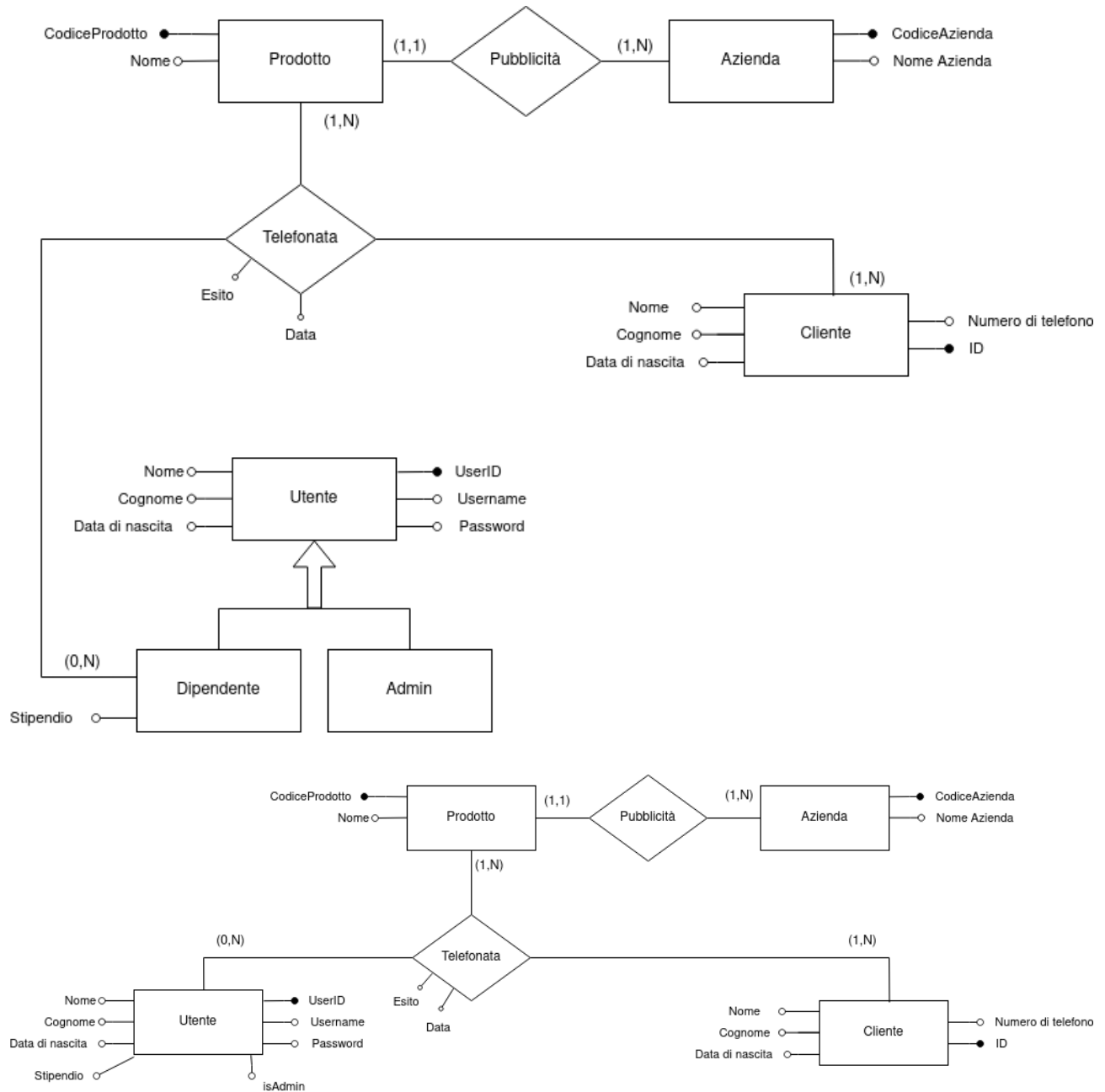
Users without specific privileges can't access the pages dedicated to the other roles (ex. employees can't access admin pages)

6. Other Requirements

Appendix A: Glossary

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Appendix B: Analysis Models



AZIENDA

corporate_id name

CLIENTE

client_id phone_number name surname date_of_birth

UTENTE

user_id name surname date_of_birth salary is_admin username password

PRODOTTO

product_id name description corporate_id

TELEFONATA

call_id user_id client_id product_id date outcome was_sold