Software Requirements Specification (SRS)

Proyecto: Plataforma web para la compilación de empleos (ODS: Fin de la pobreza)

Fecha: [05/09/2025]

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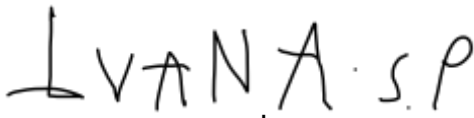
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[Equipo 4]

Date	Autores	Revision	Reviser	Changes suggested
17/septiembre/ 2025	Castellon Ocho Andrés Sanchez Perez Ivan Alejandro Sánchez Vázquez Kevin Eduardo William Ulises Gonzales Diaz Ruiz Rodríguez José Manuel Salazar Cazerez Angel	1.-First draft	Parra Galaviz Ray Brunett	Name the app, Detail information, Add more features

Date	Autores	Revision	Reviser	Changes suggested
18/septiembre/ 2025	Castellon Ocho Andrés Sanchez Perez Ivan Alejandro Sánchez Vázquez Kevin Eduardo William Ulises Gonzales Diaz Ruiz Rodríguez José Manuel Salazar Cazerez Angel	1.1.-Second draft	Parra Galaviz Ray Brunett	

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1. Introduction

1.1 Purpose

The purpose of this system is to reduce poverty through a website that connects people with specific skills to those who need their services.

The system will allow individuals to register the skills they possess (e.g., plumbing, carpentry, moving, appliance repair, etc.), while others will be able to search for and hire these services easily and securely.

1.2 Scope

User registration: People offering services (skills) and people seeking to hire services.

Skill profiles: Users offering services will be able to register the type of skill, experience, rates, and availability.

Service posting and search: People in need of a service will be able to search for providers by filtering skills, location, and availability.

Direct hiring: Allow users to directly contact or hire the person offering the service.

1.3 References

United Nations: Sustainable Development Goals (SDG 1: No Poverty).

2. General Description

2.1 Product Perspective

The "Direct Employment" platform will be an independent, intuitive, and accessible web system designed to function as an online service marketplace. Its main goal is to efficiently connect independent workers (plumbers, electricians, carpenters, etc.) with clients who need their services. The platform will focus on transparency, trust, and security. To achieve this, all users and posts will be validated and supervised by an administrator who will act as a quality guarantor.

2.2 Main Features

- Registration and login with email/phone number validation
- Job posting by companies and organizations
- Creation of professional profiles
- Job search with advanced filters
- Rating and review system
- Internal message inbox
- Email notifications about new job openings
- Reporting of fraudulent postings
- User and job posting management
- Generation of statistical reports by the administrator

2.3 User Characteristics

Job seekers: individuals looking for work.

Employers: companies or organizations posting offers.

Administrator: responsible for supervising the platform.

2.4 Constraints

- The platform requires an internet connection.
- Phone number: Must contain 10-12 valid numeric digits.
- Email: Must be validated using the standard format (user@domain.com).
- Address: Required and must be at least 5 characters long.
- Users may not post multiple jobs at the same time without validating their account.
- Duplicate vacancies with the same information will not be accepted.
- Compatible with Chrome, Firefox, Edge, Safari, and Thor browsers.

3. Specific Requirements

3.1 Functional Requirements

The system must:

1. Allow user registration as workers or clients.
2. Validate user information upon registration (email, password).
3. Offer secure login with registered credentials.
4. Allow workers to create, edit, and delete their skills profile (type of service, experience, rates, availability).
5. Allow clients to search for workers using filters (skill, location, availability, price).
6. Enable a direct contracting system between client and worker.
7. Offer an internal messaging system for communication between clients and workers.
8. Allow the posting of reviews and ratings for hired workers.
9. Integrate a secure online payment system for hiring workers.
10. Record the history of services contracted and provided by each worker.

3.2 Non-Functional Requirements

Performance:

- Response Time: The system's response time must not exceed 3 seconds for common operations such as user registration, worker search, and hiring confirmation.

Usability:

- Intuitiveness: The user interface (UI) must be intuitive and easy to use for people with basic computer skills. Primary actions (search, hire, rate) should be accessible in no more than 3 clicks.

Availability:

- Uptime: The system must be available at least 99% of the time. Scheduled maintenance should not exceed 4 hours per month and must be announced 48 hours in advance.

Security:

- Data Protection: The platform must protect users' personal information (contact details, service history) through encryption and security protocols.
- Access Control: The system must implement a role-based access control to ensure that each user type (client, worker, administrator) can only access the functions and data corresponding to their profile.
- Input Validation: All user data input must be validated on the server to prevent injection attacks (SQL Injection, XSS).

Reliability:

- Error Handling: The system must handle errors gracefully, displaying clear and user-friendly messages instead of raw error codes or unexpected crashes.

Portability:

- Browser Compatibility: The platform must be fully functional and visually consistent on the latest three versions of Chrome, Firefox, Edge, Safari, and Thor browsers.
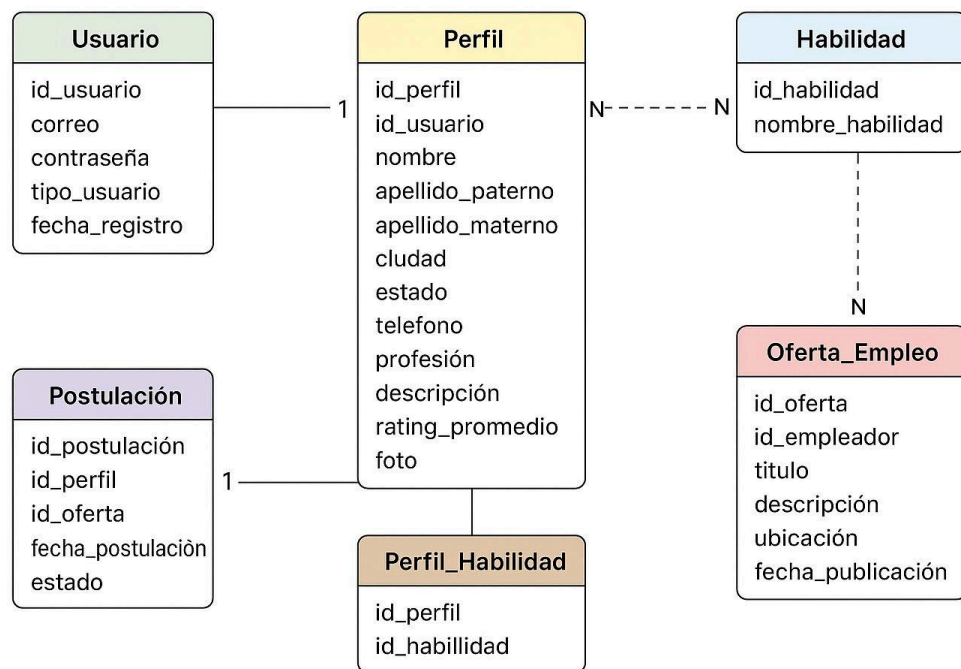
4. Use Cases

1. User Registration: Worker or client creates an account.
2. Login: Access with credentials.
3. Profile Management: The worker registers/edits skills, rates, and availability.
4. Worker Search: The client uses filters to find profiles.
5. Direct Hiring: The client requests service, and the worker accepts/rejects.
6. Internal Messaging: Communication between the client and the worker.
7. Ratings and Reviews: The client evaluates the worker.

5. Anexos

Diagrama
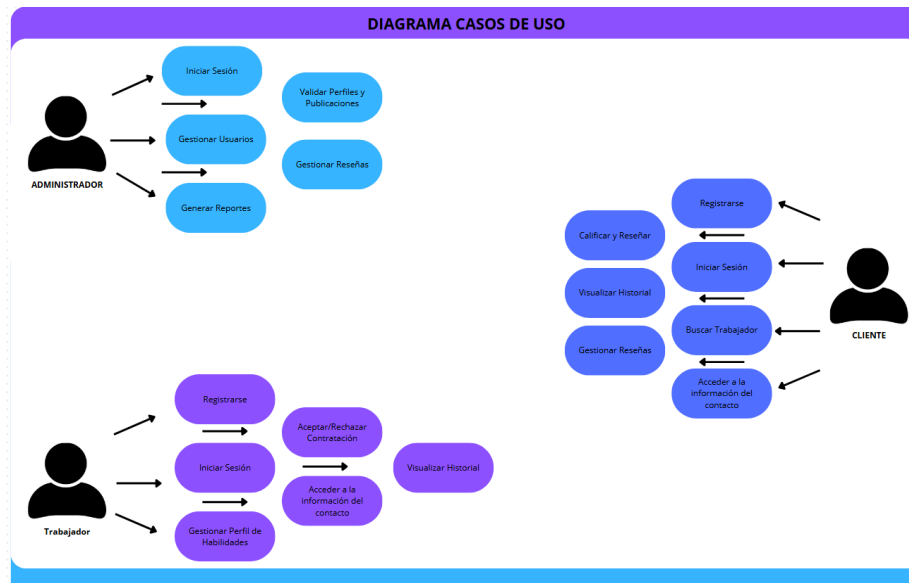
- Administrator
    - Log in: To be able to enter the app.
    - Manage user: To manage the users of the app.
    - Manage Reports: To manage the reports that the users sent.
    - Validate profiles and publications: To validate the profiles and publications sended by clients and workers.
    - Manage review: To manage the sended reviews of clients and workers.
- Client
    - Register: To register the application.
    - Log in: To enter the application.
    - Search Worker: To search the worker.
    - Access the information of their contact: To access the worker's information and contact.
    - Rate and reviews: To rate the worker and send a review.
    - Visualize their history: See the history of the worker.
    - Manage reviews: To manage reviews sended by the clients themselves.
- Worker
    - Register: To register the application.
    - Log in: To enter the application.
    - Manage profile of abilities: To manage their profile with their ability.
    - Accept or deny the hiring: To accept or deny the client to work with them.
    - Access the information of their contact: To access the worker's information and contact.
   - Visualize their history: See the history of the worker.

Usuario
- id_usuario
- correo
- contraseña
- tipo_usuario
- fecha_registro

Perfil
- id_perfil
- id_usuario
- nombre
- apellido_paterno
- apellido_materno
- ciudad
- estado
- telefono
- profesión
- descripción
- rating_promedio
- foto

Habilidad
- id_habilidad
- nombre_habilidad

Postulación
- id_postulación
- id_perfil
- id_oferta
- fecha_postulaciòn
- estado

Perfil_Habilidad
- id_perfil
- id_habillidad

Oferta_Empleo
- id_oferta
- id_empleador
- titulo
- descripción
- ubicación
- fecha_publicación

- Usuario
    - Id_user: The identification of the user.
    - Account: The account of the user.
    - Password: The password of the user to protect their account.
    - Type_User: The type of user it is.
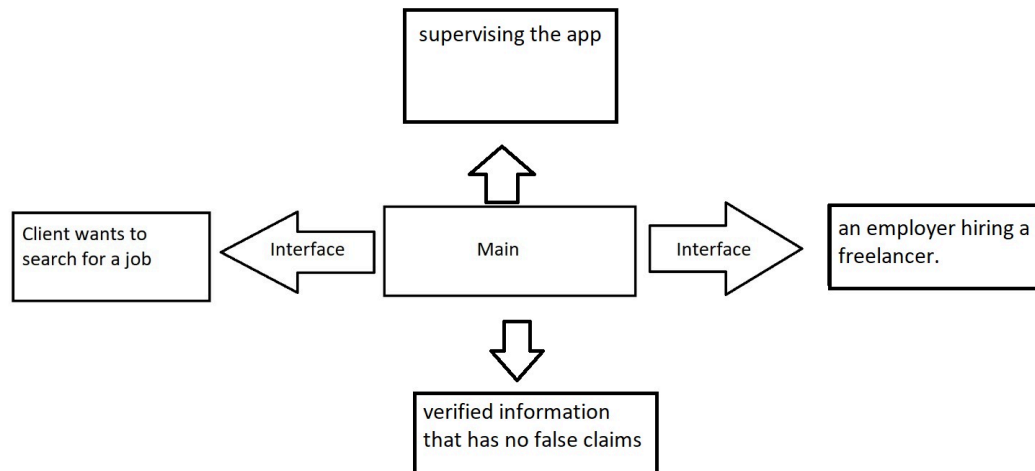   - Register_date: The date that has registered their account.

- Perfil
    - Id_Profile: The identification of the user's profile.
    - Id_user: The identification of the user.
    - Name: The name of the user.
    - Paternal_surname: The paternal surname of the user.
    - Maternal_surname: The maternal surname of the user.
    - City: The city that the user comes from.
    - State: The state that the user comes from.
    - Phone: The phone number of the user.
    - Profession: The profession of the user.
    - Description: The description of the user.
    - Average_ratings: The total average ratings that the user gave to the jobs.
    - Photo: The photo of the user.

- Habilidad
  - Id_ability: The identification of the ability of the user.
  - Ability_name: The name of the ability that the user has.
- Postulacion
  - Id_postulation:
  - Id_Profile: The identification of the user's profile.
  - Id_offer: The identification of the offer the user is making.
  - Postulation_date:
  - State: The state that the user comes from.
- Perfil Habilidad
  - Id_profile: The identification of the user's profile.
  - Id_ability: The identification of the user's ability.

- Oferta Empleo
  - Id_offer: The identification of the user's offer.
  - Id_employer: The identification of the employer.
  - Title: The title that the user has.
  - Description: The description of the work.
  - Location: The location of the work.
  - Public_date: The date that has published the work offer.
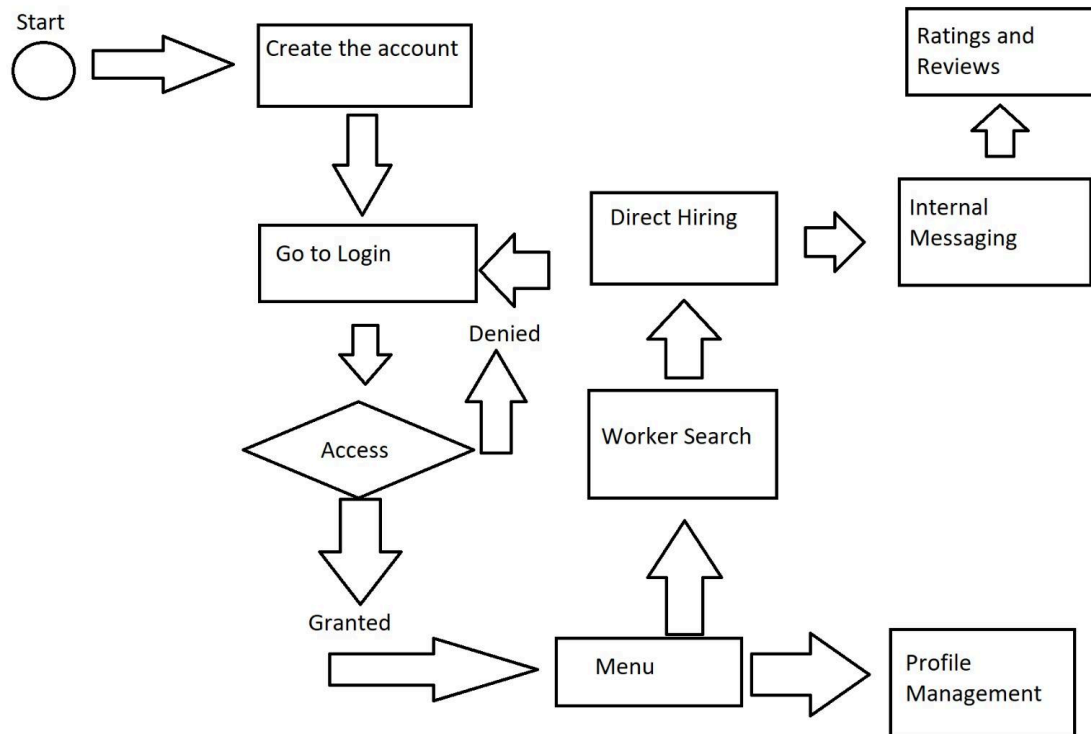
- ● Start: The starting point.
- ● Create the account: The user makes the account for the application.
- ● Go to Login: The user goes to login to get access.
- ● Access: The user has to put their account on the login correctly otherwise would be denied.
- ● Menu: The user is in the main menu of the application.
- ● Profile Management: The user manages their profile.
- ● Worker Search: The user searches the work.
- ● Direct Hiring: The user searches the work and makes a direct contact.
- ● Internal Messaging: The user gives a message to the worker to see if they can work there.
- ● Ratings and reviews: The user rates and reviews the work.

Diagram boxes:
- supervising the app
- Client wants to search for a job
- Interface
- Main
- Interface
- an employer hiring a freelancer.
- verified information that has no false claims

- Supervising the app: The application needs a supervisor to see if everything is under control.
- An employer hiring a freelancer: The employer hires a freelancer if they have talent for the work.
- Verified information that has no false claims: They need to verify if the application has no false information.
- Client wants to search for a job: The clients they search for a job on the app.

Explanation of the screens

Login screens:

Página principal (Home – Usuario autenticado)

Home   Log in   Create an account   Change language

You are a guest.

Description

This screen displays when the user has successfully logged in.

Main Elements

Navigation Bar

Includes links to:

Home

Change password

Change profile

Change email

Log out

Welcome Message

Displays the authenticated username.

Example: "Your username is admin."

Functionality

Allows the user to navigate to their account settings.

Visually confirms who is logged in.

Create an account

Description

Form to register a new user in the system.

Included fields:
Username

Must contain letters, numbers, or allowed characters.
First Name (optional)
Last Name (optional)
Email

Required for validation and access recovery.
Password

Visible security requirements:
Minimum 8 characters
Not common
Not too similar to personal data
Not entirely numeric
Password confirmation

Functionality
Create a new user.
Automatic validation by Django.
Displays errors if the form does not meet the requirements.

Home   Log in   Create an account

Create an account

Username

| Username |

Required. 150 characters or fewer. Letters, digits and @/./+/-/_ only.

First Name

| First Name |

Optional.

Last Name

| Last Name |

Optional.

Email

| @ |

Required. Type a valid email address.

Password

| Password |

- Your password can't be too similar to your other personal information.
- Your password must contain at least 8 characters.
- Your password can't be a commonly used password.
- Your password can't be entirely numeric.

Password confirmation

| Password confirmation |

Enter the same password as before, for verification.

Create

Log in

Description

Screen where users log in to the system.

Fields

Username

Password

Remember me (save session)

Additional links

Forgot your password?

Forgot your username?

Resend an activation code

Functionality

Allows access to the system using correct credentials.

Includes recovery options in case of access problems.

Home   Log in   Create an account

Log in

Username

> Username

Password

> Password

☐ Remember me

Enter

- Forgot the password?
- Forgot the username?
- Resend an activation code

Password change

Description

Form for an authenticated user to update their password.

Fields

Old password

New password

New password confirmation

Validations

The new password requirements are displayed:

Not similar to personal data

Minimum 8 characters

Not a common password

Not entirely numeric

Functionality

User security when changing credentials.

Requires confirmation to prevent errors.

Home   Change password   Change profile   Change email   Log out

Password change

Old password

Old password

New password

New password

- Your password can't be too similar to your other personal information.
- Your password must contain at least 8 characters.
- Your password can't be a commonly used password.
- Your password can't be entirely numeric.

New password confirmation

New password confirmation

Change

Change email

Email

lian71309@gmail.com

Change

Change Email

Description

Form to start the account recovery process.

Fields

Email or Username

Links

Log in (return to login)

Functionality

Send an email with reset instructions.

Allows you to recover access if you forget your credentials.

Password reset

Description

Formula for generating a new password

Fields

New password

New password confirmation

Functionality

Change password

Home   Log in   Create an account

Password reset

Please enter your new password twice so we can verify you typed it in correctly.

New password

> New password

- Your password can't be too similar to your other personal information.
- Your password must contain at least 8 characters.
- Your password can't be a commonly used password.
- Your password can't be entirely numeric.

New password confirmation

> New password confirmation

Change

Edit Profile

Description

Profile Editing Form

Fields

First Name

Last Name

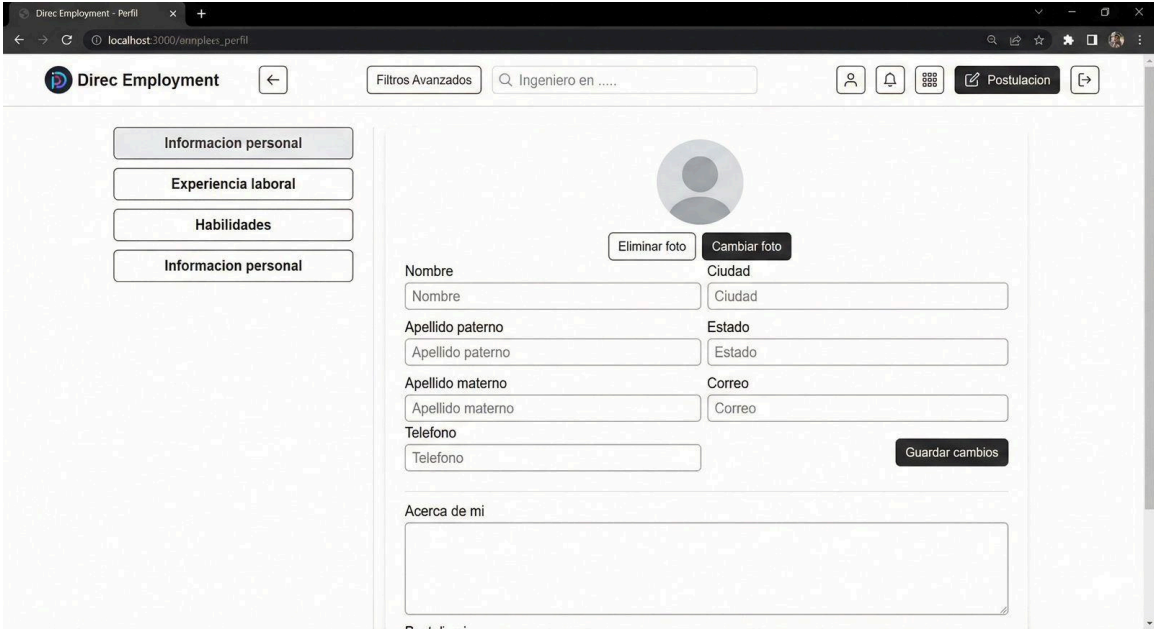Mother's Maiden Name

Phone Number

City

State

Email Address

Functionality

Modify user information, including work experience, skills, and personal details

Change language
Select the language

| English (en) | ⌄ |

Change

Change language

descipcion

Método de cambio de contraseña

Campos

Select the language

Funcionalidad

Cambia el lenguaje

Link del repositorio

https://github.com/l21212364/DirectEmployment