

## # GetSoluce - Complete Technical Specification

### ## All-in-one HR Solution for French Multi-Company SMEs

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#### ## 1. Project Overview

\*\*GetSoluce\*\* is a centralized SaaS HR management platform, specifically designed for French multi-company SMEs (Small and Medium Enterprises).

##### ### Important French Context:

- \*\*SME\*\*: Companies with 10 to 249 employees (French definition)
- \*\*Multi-company\*\*: A group of companies with multiple distinct legal entities
- \*\*SIRET\*\*: Unique identification number for French establishments (14 digits)
- \*\*GDPR\*\*: European regulation on personal data protection

##### ### General Architecture:

- \*\*1 Creator\*\* (Super Admin): Unique platform owner
- \*\*N Companies\*\*: Platform clients
- \*\*N×M Administrators\*\*: HR managers of companies
- \*\*N×M×P Employees\*\*: Company employees

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#### ## 2. Authentication System and Account Management

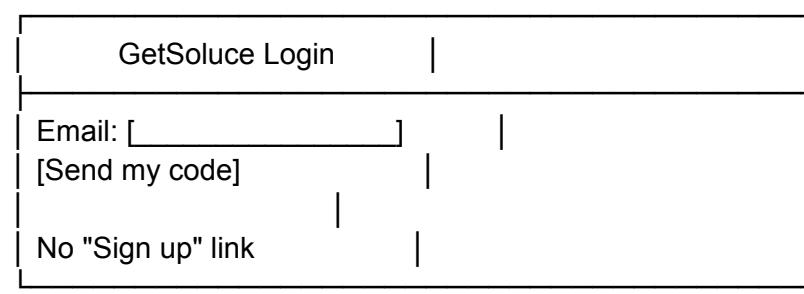
##### ### 2.1 Core Principle

\*\*NO PUBLIC REGISTRATION\*\* - All accounts are created by invitation only.

##### ### 2.2 Login Process

###### #### Login Interface:

...



...

#### #### Authentication Workflow:

1. \*\*Step 1\*\*: User enters their email
1. \*\*Step 2\*\*: System generates a 6-digit OTP (One Time Password)
1. \*\*Step 3\*\*: Code sent by email (valid for 5 minutes)
1. \*\*Step 4\*\*: User enters received code
1. \*\*Step 5\*\*: Validation and automatic login

#### #### Security:

- \*\*Validity duration\*\*: 5 minutes maximum
- \*\*Attempts\*\*: 3 maximum per code
- \*\*Invalidation\*\*: Code destroyed after successful use
- \*\*Storage\*\*: `login\_tokens` table or temporary column in `users`

#### #### Suggested Technical Structure:

```
```sql
-- Table for login tokens
CREATE TABLE login_tokens (
    id BIGINT PRIMARY KEY AUTO_INCREMENT,
    email VARCHAR(255) NOT NULL,
    token VARCHAR(6) NOT NULL,
    expires_at TIMESTAMP NOT NULL,
    attempts INT DEFAULT 0,
    used_at TIMESTAMP NULL,
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP
);
````
```

### ## 2.3 Role Management and Redirections

#### #### Role Structure in users table:

```
```sql
-- Columns in users table
is_creator BOOLEAN DEFAULT FALSE, -- Super Admin (only 1)
is_admin BOOLEAN DEFAULT FALSE, -- Company admin
company_id BIGINT NULL, -- Link to company
active BOOLEAN DEFAULT TRUE -- Active/inactive account
````
```

#### #### Automatic Redirections After Login:

- \*\*Creator\*\* (`is\_creator = true`) → `/dashboard/creator`
- \*\*Admin\*\* (`is\_admin = true`) → `/dashboard/admin`
- \*\*Employee\*\* (neither creator nor admin) → `/dashboard/employee`

#### Laravel Security Middleware:

```
```php
// Middleware to check roles
Route::middleware(['auth', 'role:creator'])->group(function () {
    Route::get('/dashboard/creator', [CreatorController::class, 'dashboard']);
});

Route::middleware(['auth', 'role:admin'])->group(function () {
    Route::get('/dashboard/admin', [AdminController::class, 'dashboard']);
});

Route::middleware(['auth', 'role:employee'])->group(function () {
    Route::get('/dashboard/employee', [EmployeeController::class, 'dashboard']);
});
```
-----
```

### ## 3. Creator (Super Admin) Features

#### ### 3.1 Global Dashboard

Main interface with key metrics:

#### Main Statistics:

- \*\*Total active companies\*\*
- \*\*Total active employees\*\*
- \*\*Total pending requests\*\* (leave, absence, expense, advance)
- \*\*Global revenue\*\* and detailed by company
- \*\*Time-based charts\*\* of registrations and activities

#### Data Structure Example:

```
```php
$stats = [
    'total_companies' => Company::where('active', true)->count(),
    'total_employees' => User::where('is_admin', false)->where('is_creator', false)->count(),
    'pending_requests' => [
        'leaves' => LeaveRequest::where('status', 'pending')->count(),
        'absences' => AbsenceRequest::where('status', 'pending')->count(),
        'expenses' => ExpenseRequest::where('status', 'pending')->count(),
        'advances' => AdvanceRequest::where('status', 'pending')->count(),
    ],
    'revenue' => [
        'total' => $totalRevenue,
    ],
];
```
-----
```

```
'by_company' => $revenueByCompany  
]  
];  
...  
};
```

### ### 3.2 Company Creation

#### #### Creation Form:

...

Create a Company

Name: [ ]

Address: [ ]

SIRET: [ ] (14 digits)

HR Contact: [ ]

Contact Email: [ ]

Price/employee: [ ] €/month

Logo: [Choose file]

[Create Company]

...

#### #### SIRET Validation:

The French SIRET is a 14-digit number (SIREN + NIC). Required validation:

```
```php  
// Laravel validation  
'siret' => 'required|digits:14|unique:companies,siret'  
...  
```
```

#### #### Companies Table Structure:

```
```sql  
CREATE TABLE companies (  
    id BIGINT PRIMARY KEY AUTO_INCREMENT,  
    name VARCHAR(255) NOT NULL,  
    address TEXT NOT NULL,  
    siret VARCHAR(14) UNIQUE NOT NULL,  
    hr_contact_name VARCHAR(255) NOT NULL,  
    hr_contact_email VARCHAR(255) NOT NULL,  
    price_per_employee DECIMAL(8,2) NOT NULL,  
    logo_path VARCHAR(255) NULL,  
    active BOOLEAN DEFAULT TRUE,  
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,  
);  
...  
```
```

```
updated_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP
);
...
```

### ### 3.3 Billing System

#### #### Automatic Calculation:

- \*\*Base\*\*: Number of active employees × monthly rate per employee
- \*\*Period\*\*: Automatic monthly billing
- \*\*Generation\*\*: Automatic PDF with details

#### #### Calculation Example:

```
```php
// Monthly calculation per company
$activeEmployees = User::where('company_id', $company->id)
    ->where('is_admin', false)
    ->where('is_creator', false)
    ->where('active', true)
    ->count();

$monthlyAmount = $activeEmployees * $company->price_per_employee;
...```

```

#### #### Invoices Table Structure:

```
```sql
CREATE TABLE invoices (
    id BIGINT PRIMARY KEY AUTO_INCREMENT,
    company_id BIGINT NOT NULL,
    invoice_number VARCHAR(50) UNIQUE NOT NULL,
    month INT NOT NULL,
    year INT NOT NULL,
    employee_count INT NOT NULL,
    price_per_employee DECIMAL(8,2) NOT NULL,
    total_amount DECIMAL(10,2) NOT NULL,
    pdf_path VARCHAR(255) NULL,
    sent_at TIMESTAMP NULL,
    paid_at TIMESTAMP NULL,
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    FOREIGN KEY (company_id) REFERENCES companies(id)
);
...```

```

### ### 3.4 Administrator Invitation Management

#### #### Invitation Process:

1. \*\*Company selection\*\*: Choose target company
1. \*\*Information entry\*\*: Name, first name, email of future admin
1. \*\*Invitation generation\*\*: Unique invitation token
1. \*\*Email sending\*\*: Secure account activation link

#### #### Invitations Table Structure:

```
```sql
CREATE TABLE invitations (
    id BIGINT PRIMARY KEY AUTO_INCREMENT,
    company_id BIGINT NOT NULL,
    email VARCHAR(255) NOT NULL,
    token VARCHAR(255) UNIQUE NOT NULL,
    invited_by_id BIGINT NOT NULL,
    accepted_at TIMESTAMP NULL,
    expires_at TIMESTAMP NOT NULL,
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    FOREIGN KEY (company_id) REFERENCES companies(id),
    FOREIGN KEY (invited_by_id) REFERENCES users(id)
);
```
```

```

#### ## 3.5 Communication System

##### #### Communication Types:

- \*\*Individual\*\*: Message to a specific admin
- \*\*By company\*\*: Message to all admins of a company
- \*\*Global\*\*: Message to all admins of all companies

##### #### Communication Interface:

...

Send a Message	
Recipient: [▼ All companies]	
Subject: [ ]	
Message: [ ]	
[ ]	
[ ]	
[Send]	

...

#### ## 3.6 Extended Rights

The Creator has \*\*all rights\*\* on \*\*all companies\*\*:

- View all employees
  - Validate/reject all requests
  - Access all dashboards
  - Modify all information
  - Deactivate accounts
- 

## ## 4. Company Administrator Features

### ### 4.1 Dedicated Dashboard

#### #### Internal HR Statistics:

- \*\*Number of active employees\*\* in the company
- \*\*Pending requests\*\* (leave, absence, expense, advance)
- \*\*Approved requests\*\* this month
- \*\*Rejected requests\*\* this month
- \*\*Time-based charts\*\* of requests

#### #### Metrics Example:

```
```php
$adminStats = [
    'active_employees' => User::where('company_id', auth()->user()->company_id)
        ->where('is_admin', false)
        ->where('active', true)
        ->count(),
    'pending_requests' => [
        'leaves' => LeaveRequest::whereHas('user', function($q) {
            $q->where('company_id', auth()->user()->company_id);
        })->where('status', 'pending')->count(),
        // ... other requests
    ],
    'this_month_approved' => // Calculate approved requests this month
];
````
```

### ### 4.2 Employee Management

#### #### Creation by invitation:

The admin cannot directly create an employee. They must invite them via email.

#### #### Employee Invitation Form:

...

|                    |                                  |
|--------------------|----------------------------------|
| Invite an Employee |                                  |
| Last Name:         | [ <input type="text"/> ]         |
| First Name:        | [ <input type="text"/> ]         |
| Email:             | [ <input type="text"/> ]         |
| Phone:             | [ <input type="text"/> ]         |
| Address:           | [ <input type="text"/> ]         |
| Birth Date:        | [ <input type="text"/> ]         |
| Gross Hourly Rate: | [ <input type="text"/> ] €/h     |
| Gross Salary:      | [ <input type="text"/> ] €/month |
| Contract Type:     | [▼ CDI/CDD/Temp]                 |
| Hire Date:         | [ <input type="text"/> ]         |
| CV:                | [Choose file]                    |
|                    | [Invite Employee]                |

...

#### #### French Contract Types:

- \*\*CDI\*\*: Permanent Contract (indefinite duration)
- \*\*CDD\*\*: Fixed-term Contract (temporary)
- \*\*Temp\*\*: Temporary agency work

#### #### Employee\_profiles Table Structure:

```
```sql
CREATE TABLE employee_profiles (
    id BIGINT PRIMARY KEY AUTO_INCREMENT,
    user_id BIGINT UNIQUE NOT NULL,
    phone VARCHAR(20) NULL,
    address TEXT NULL,
    birth_date DATE NULL,
    hourly_rate DECIMAL(8,2) NULL,
    monthly_salary DECIMAL(10,2) NULL,
    contract_type ENUM('CDI', 'CDD', 'Temp') NOT NULL,
    hire_date DATE NOT NULL,
    cv_path VARCHAR(255) NULL,
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    updated_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
    FOREIGN KEY (user_id) REFERENCES users(id) ON DELETE CASCADE
);```

```

#### #### Departure Management:

- **Resignation**: Employee leaves voluntarily
- **Contract end**: Natural expiration (CDD/Temp)
- **Termination**: Break initiated by employer

```
```php
// Deactivate an employee
$user = User::find($id);
$user->update([
    'active' => false,
    'departure_date' => now(),
    'departure_reason' => $reason // resignation, contract_end, termination
]);
```

```

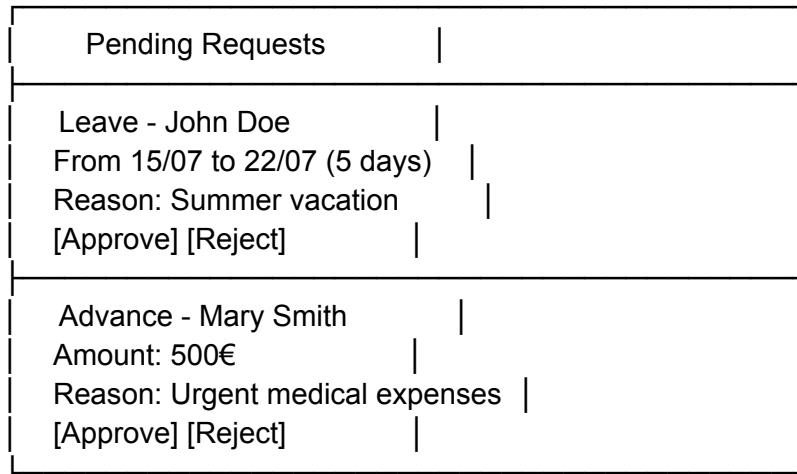
### ### 4.3 HR Request Management

#### #### Request Types:

- **Leave**: Paid vacation (legally mandatory in France)
- **Absence**: Sick leave, training, unpaid leave
- **Expense reports**: Professional expense reimbursement
- **Advances**: Salary advance

#### #### Validation Interface:

...



#### #### Validation Workflow:

1. **Receipt**: Request created by employee
1. **Notification**: Automatic email to admin
1. **Evaluation**: Admin examines request
1. **Decision**: Approval or rejection with comment

1. \*\*Notification\*\*: Response sent to employee

#### ### 4.4 Internal Communication System

##### #### Message Types:

- \*\*Individual\*\*: Message to a specific employee
- \*\*Collective\*\*: Message to all company employees
- \*\*Urgent\*\*: Priority message with push notification

##### #### Communication Interface:

...

|                              |  |
|------------------------------|--|
| Internal Communication       |  |
| Recipient: [▼ All employees] |  |
| Priority: [▼ Normal]         |  |
| Subject: [ ]                 |  |
| Message: [ ]                 |  |
| [ ]                          |  |
| [Send]                       |  |

...

#### ### 4.5 Invoice Consultation

The admin can view their company's invoices:

- \*\*Current invoices\*\*: Current month
- \*\*History\*\*: All past invoices
- \*\*Details\*\*: Number of billed employees, amount
- \*\*Download\*\*: PDF invoices

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### ## ⚡ 5. Employee Features

#### ### 5.1 Personal Dashboard

##### #### Overview:

- \*\*My requests\*\*: Status of all requests
- \*\*Leave balance\*\*: Available/used days
- \*\*Upcoming absences\*\*: Validated upcoming leave
- \*\*Messages\*\*: Company communications

##### #### Dashboard Example:

...

|   |  |
|---|--|
| My Dashboard  |  |
| My Statistics<br>Remaining leave: 18 days<br>Pending requests: 2<br>Approved requests: 5        |  |
| My Recent Requests<br>Leave 15-22/07: Approved<br>Advance 500€: Pending<br>Sick leave: Approved |  |

...

### ### 5.2 HR Request Submission

#### #### Leave Request Form:

...

|                                |  |
|--------------------------------|--|
| Leave Request                  |  |
| Start Date: [_____]            |  |
| End Date: [_____]              |  |
| Days Count: [____] (auto-calc) |  |
| Reason: [_____]                |  |
| Comment: [_____]               |  |
| [Submit Request]               |  |

...

#### #### Expense Report Form:

...

|                                    |  |
|------------------------------------|--|
| Expense Report                     |  |
| Date: [_____]                      |  |
| Amount: [_____] €                  |  |
| Category: [▼ Transport/Meals/Acc.] |  |
| Description: [_____]               |  |
| Receipt: [Choose file]             |  |
| [Submit Request]                   |  |

...

#### #### Request Tables Structure:

```
```sql
-- Leave requests
CREATE TABLE leave_requests (
    id BIGINT PRIMARY KEY AUTO_INCREMENT,
    user_id BIGINT NOT NULL,
    start_date DATE NOT NULL,
    end_date DATE NOT NULL,
    days_count INT NOT NULL,
    reason TEXT NOT NULL,
    status ENUM('pending', 'approved', 'rejected') DEFAULT 'pending',
    admin_comment TEXT NULL,
    approved_by_id BIGINT NULL,
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    FOREIGN KEY (user_id) REFERENCES users(id)
);

-- Expense reports
CREATE TABLE expense_requests (
    id BIGINT PRIMARY KEY AUTO_INCREMENT,
    user_id BIGINT NOT NULL,
    amount DECIMAL(10,2) NOT NULL,
    category VARCHAR(50) NOT NULL,
    description TEXT NOT NULL,
    receipt_path VARCHAR(255) NULL,
    status ENUM('pending', 'approved', 'rejected') DEFAULT 'pending',
    admin_comment TEXT NULL,
    approved_by_id BIGINT NULL,
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    FOREIGN KEY (user_id) REFERENCES users(id)
);
```

```

#### ## 5.3 Personal Profile Management

##### #### Modifiable Information:

- \*\*Name, first name\*\*: Civil status change
- \*\*Email\*\*: Contact address
- \*\*Phone\*\*: Personal number
- \*\*Address\*\*: Home address

##### #### NON-modifiable Information (only admin can):

- Salary

- Hourly rate
- Contract type
- Hire date

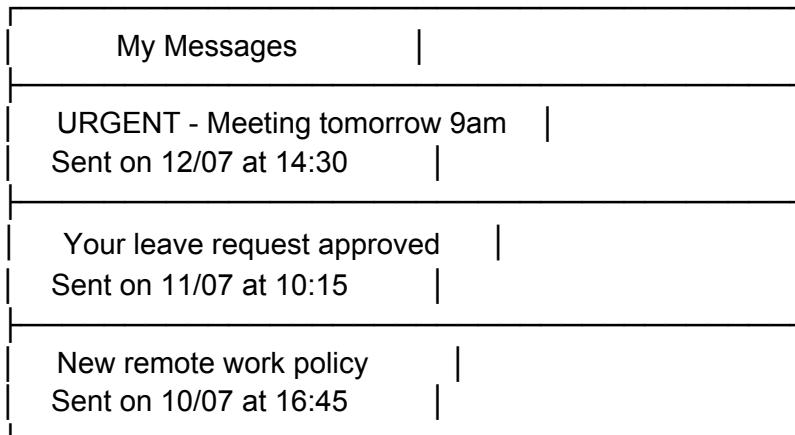
#### ### 5.4 Communication Reception

##### #### Types of Messages Received:

- \*\*General information\*\*: Company announcements
- \*\*Notifications\*\*: Request responses
- \*\*Urgent\*\*: Priority messages

##### #### Messaging Interface:

...



...

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## ## 6. Technical Specifications

#### ### 6.1 Technology Stack

##### #### Backend:

- \*\*Framework\*\*: Laravel 11
- \*\*PHP\*\*: Version 8.1+
- \*\*Database\*\*: MySQL 8.0
- \*\*Cache\*\*: Redis (optional)
- \*\*Queue\*\*: Laravel Queue (for emails)

##### #### Frontend:

- \*\*CSS Framework\*\*: Bootstrap 5
- \*\*Template Engine\*\*: Blade (Laravel)

- \*\*JavaScript\*\*: Vanilla JS + Bootstrap JS
- \*\*Icons\*\*: Bootstrap Icons or Font Awesome

#### #### Authentication:

- \*\*Base\*\*: Laravel Breeze (customized)
- \*\*Sessions\*\*: Laravel sessions
- \*\*Middleware\*\*: Custom role-based middleware

#### ### 6.2 Migration Structure

##### #### Users Migration:

```
```php
Schema::create('users', function (Blueprint $table) {
    $table->id();
    $table->string('name');
    $table->string('email')->unique();
    $table->timestamp('email_verified_at')->nullable();
    $table->boolean('is_creator')->default(false);
    $table->boolean('is_admin')->default(false);
    $table->foreignId('company_id')->nullable()->constrained()->onDelete('cascade');
    $table->boolean('active')->default(true);
    $table->date('departure_date')->nullable();
    $table->string('departure_reason')->nullable();
    $table->timestamps();
});

```

```

#### ### 6.3 Notification System

##### #### Notification Types:

- \*\*Email\*\*: External notifications
- \*\*Internal\*\*: In-app notifications
- \*\*Push\*\*: Browser notifications (optional)

##### #### Trigger Events:

- New HR request
- Request validation/rejection
- New message
- New employee invited
- Invoice generated

#### ### 6.4 File Management

##### #### Storage:

- \*\*Directory\*\*: `storage/app/public/`
- \*\*Supported types\*\*: PDF, JPG, PNG, DOC, DOCX
- \*\*Max size\*\*: 5MB per file

#### #### Folder Structure:

...

storage/app/public/

```
└── companies/
    ├── logos/
    └── invoices/
    └── employees/
        ├── cvs/
        └── documents/
    └── expenses/
        └── receipts/
```

...

-----

## ## 7. Design Specifications

### ### 7.1 Visual Identity

#### #### Logo and Colors:

- \*\*Logo\*\*: Modern and clean
- \*\*Primary color\*\*: Professional blue (#2563eb)
- \*\*Secondary color\*\*: Gray (#6b7280)
- \*\*Success color\*\*: Green (#059669)
- \*\*Error color\*\*: Red (#dc2626)

#### #### Typography:

- \*\*Family\*\*: Inter or Roboto
- \*\*Titles\*\*: Font-weight 600
- \*\*Text\*\*: Font-weight 400

### ### 7.2 General Layout

#### #### Common Structure:

```
```html
<div class="container-fluid">
    <div class="row">
        <div class="col-md-3">
            <!-- Sidebar navigation -->
```

```
</div>
<div class="col-md-9">
    <!-- Main content -->
</div>
</div>
...

```

#### #### Sidebar Navigation:

- \*\*Creator\*\*: Companies, Billing, Statistics
- \*\*Admin\*\*: Employees, Requests, Communications, Invoices
- \*\*Employee\*\*: Requests, Profile, Messages

#### ### 7.3 Specific Pages

##### #### Public Homepage:

- \*\*Hero section\*\*: GetSoluce presentation
- \*\*Carousel\*\*: Main features
- \*\*Testimonials\*\*: Customer feedback
- \*\*Call-to-action\*\*: Demo request

##### #### Login Page:

- \*\*Clean design\*\*: Focus on login
- \*\*No distractions\*\*: No registration link
- \*\*Responsive\*\*: Mobile adaptation

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## ## 8. Security and Compliance

### ### 8.1 Data Security

#### #### Encryption:

- \*\*Sensitive data\*\*: AES-256 encryption
- \*\*Passwords\*\*: Bcrypt hashing
- \*\*Transmission\*\*: HTTPS mandatory

#### #### Data Validation:

- \*\*Client-side\*\*: JavaScript validation
- \*\*Server-side\*\*: Laravel validation
- \*\*Sanitization\*\*: Data escaping

### ### 8.2 GDPR Compliance

#### #### User Rights:

- \*\*Right of access\*\*: Personal data export
- \*\*Right of rectification\*\*: Data modification
- \*\*Right to erasure\*\*: Data deletion
- \*\*Right to portability\*\*: Standard format export

#### #### Technical Measures:

- \*\*Pseudonymization\*\*: Non-speaking identifiers
- \*\*Minimization\*\*: Collection limited to necessary
- \*\*Retention\*\*: Limited storage duration
- \*\*Traceability\*\*: Access and modification logs

### ### 8.3 Backup and Recovery

#### #### Backups:

- \*\*Frequency\*\*: Daily automatic
- \*\*Retention\*\*: 30 days minimum
- \*\*Storage\*\*: Secure separate location
- \*\*Testing\*\*: Monthly verification

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## ## 9. Expected Deliverables

### ### 9.1 Web Application

#### #### Complete Features:

- OTP authentication system
- 3 differentiated dashboards
- Complete company management
- Invitation system
- HR request management
- Communication system
- Automatic billing
- Responsive interface

### ### 9.2 Documentation

#### #### Technical Documentation:

- \*\*Installation\*\*: Step-by-step guide

- **Configuration**: Environment variables
- **Database**: Schema and relationships
- **API**: Endpoints and parameters
- **Deployment**: Production deployment procedure

#### #### User Documentation:

- **Creator Guide**: All features
- **Admin Guide**: Employee management
- **Employee Guide**: Daily usage
- **FAQ**: Frequently asked questions

#### ### 9.3 Visual Elements

#### #### Brand Guidelines:

- **Logo**: Color and monochrome versions
- **Color palette**: Hexadecimal codes
- **Typography**: Families and weights
- **Iconography**: Icon library

#### #### UX Mockups:

- **Wireframes**: Page structure
- **Mockups**: Finalized design
- **Prototypes**: User interactions

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## ## 10. Development Considerations

### ### 10.1 Development Environment

#### #### Prerequisites:

- **PHP**: 8.1+
- **Composer**: 2.0+
- **Node.js**: 16+ (for assets)
- **MySQL**: 8.0+

#### #### Laravel Configuration:

```
```bash
# Installation
composer install
npm install
php artisan key:generate
php artisan migrate
```

```
php artisan db:seed
```

```
...
```

### ### 10.2 Testing

#### #### Test Types:

- \*\*Unit tests\*\*: Models and services
- \*\*Feature tests\*\*: Endpoints and features
- \*\*Browser tests\*\*: Complete user journeys

#### #### Minimum Coverage:

- \*\*Controllers\*\*: 90%
- \*\*Models\*\*: 95%
- \*\*Services\*\*: 85%

### ### 10.3 Performance

#### #### Optimizations:

- \*\*Cache\*\*: Frequent queries
- \*\*Pagination\*\*: Long lists
- \*\*Lazy loading\*\*: Eloquent relationships
- \*\*Compression\*\*: CSS/JS assets

#### #### Monitoring:

- \*\*Logs\*\*: Laravel Log
- \*\*Errors\*\*: Error tracking system