Installation Manual

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Prerequisites

Before starting the installation process, make sure that the EC2 instance where you plan to install the applications meets the following prerequisites.

AWS

Make sure to have an AWS account. If you do not have an active account, sign up here: AWS account

Node

For Windows make sure to install it correctly from here: node.
If you are working with Linux you can use the distributions package manager.

IAM Permissions

Ensure that the IAM user responsible for setting up the environment possesses administrator access to successfully deploy and configure AWS services: Lambda, RDS, SNS, Cognito, EC2, CloudWatch and Amazon Connect.

When setting up Lambda, establish a role with these permissions: AWS Lambda´s basic execution role and complete access to Amazon Connect.

Network and Security Configurations

EC2 Security Group

- Allow SSH (port 22) from your IP.
- Allow HTTP (port 80) and HTTPS (port 443) for web applications.
- Allow connections to RDS (port 3306 for MySQL).

Backend Application Deployment

This guide provides detailed steps for deploying the backend application on an EC2 instance, including setting up the instance, cloning the repository, installing dependencies, configuring environment variables, and starting the backend application.

Setting up the EC2 Instance

1. Open the AWS Management Console.
2. Navigate to the EC2 Dashboard and click "Launch Instance."
3. Choose the Amazon Machine Image (AMI).
4. Select Instance Type: Choose t2.medium.
5. Configure Instance Details: Set up the instance according to your requirements.
6. Add Storage: Adjust storage settings if necessary.
7. Configure Security Group: Create a new security group or select an existing one.
   - Allow HTTP (port 80) and HTTPS (port 443) for web access.
   - Allow SSH (port 22) for SSH access.
   - Allow database (port 3306) for RDS communication.

Cloning the Backend Application Repository

Ensure Git is installed on your EC2 instance and clone the repository with the command:

```
Unset
  git clone https://github.com/Alfredo-Azamar/backendIzziGod
```

Installing Dependencies

Install Node.js version 20.12 or higher.
Navigate to the cloned repository and install the dependencies listed in package.json with the command

```
Unset
npm install
```

Configuring Environment Variables

Create a `.env` file in your root directory and add the necessary environment variables:

```
Unset
NODE_ENV={development or equivalent}
  DB_HOST={your RDS host}
```

```
DB_NAME={izzigod}
DB_USER={your DB user}
DB_PASSWORD={your DB password}
AWS_REGION={your AWS region}
AWS_ACCESS_KEY_ID={your access key}
AWS_SECRET_ACCESS_KEY={your secret access key}
AWS_INSTANCE_ID={your aws instance id}
```

Starting the Backend Application

Build and start the application with the following command:

```
Unset
npm run build:start
```

Additional Considerations

- Security Groups and Firewall: Ensure your EC2 instance's security group allows traffic on the necessary ports.
- HTTPS: For production environments, ensure the application is accessible over HTTPS. Set up an SSL certificate using AWS Certificate Manager or use a reverse proxy like Nginx.
- Environment Variables Security: Keep the `.env` file secure and do not commit it to version control.

Supervisor Application

This guide provides step-by-step instructions to deploy the Node.js application for administrators, including installing dependencies and starting the administrator dashboard application.

Clone the Administrator Frontend Repository

Open your terminal or command prompt.
Run the following command to clone the repository:

```
Unset
  git clone https://github.com/Bernardo0173/supint.git
```

Install Dependencies

- Navigate to the project directory: In your terminal, change directory to the cloned repository.
- Install Node.js dependencies: Run `npm install` to install all dependencies listed in the `package.json`.

Start the Supervisor Dashboard Application

After installing dependencies, start the Node.js application using `npm start`.

Agent Application

This guide provides step-by-step instructions to deploy the Node.js application for agents, including setting up the Connect Streams API for agent login, configuring environment variables, installing dependencies, and starting the agent dashboard application.

Clone the Agent Frontend Repository

Open your terminal or command prompt.
Run the following command to clone the repository:

```
Unset
  git clone https://github.com/karicm/TC3005B.proyecto.git
```

Configure .env for AWS Dependencies

- Obtain the necessary credentials (Access Key ID, Secret Access Key, AWS Region) required for the AWS APIs and Amazon Connect Streams API.
- Create a `.env` file in the root directory of the cloned repository.
- Add the following environment variables to the `.env`:

```
Unset
  REACT_APP_ACCESS_KEY_ID={your access key}
```

```
REACT_APP_SECRET_ACCESS_KEY={your secret access key}
REACT_APP_AWS_REGION={your region}
```

Install Dependencies

- Navigate to the project directory: In your terminal, change directory to the cloned repository.
- Install Node.js dependencies: Run `npm install` to install all dependencies listed in the `package.json`.

Start the Agent Dashboard Application

After installing dependencies, start the Node.js application using `npm start`.

Additional Considerations

- HTTPS: Host the application on an HTTPS server to ensure compatibility with the Connect Streams API iframe.
- Keep the `.env` file containing all your credentials secure and do not expose it in public repositories.

Amazon SNS Configuration

Configuring subscriptions

- Access the Amazon SNS Console.
- In the left navigation pane, click on “Subscriptions.”
- Click on the “Create subscription” button and select the protocol “SMS.”
- Enter the endpoint, which is the phone number that will receive the notifications. Make sure to include the +52 extension for Mexico or the relevant country code.
- Click “Create subscription” and follow the instructions to confirm the subscription if necessary.

Adjusting Quotas for the Business Case

- If you need to increase the number of topics, subscriptions, or message throughput, click on the quota you want to increase.
- Click “Request quota increase,” fill in the necessary details, and submit your request.
- AWS will review and respond to your request.