Deploying WordPress website on AWS using elastic beanstalk

What is Elastic beanstalk

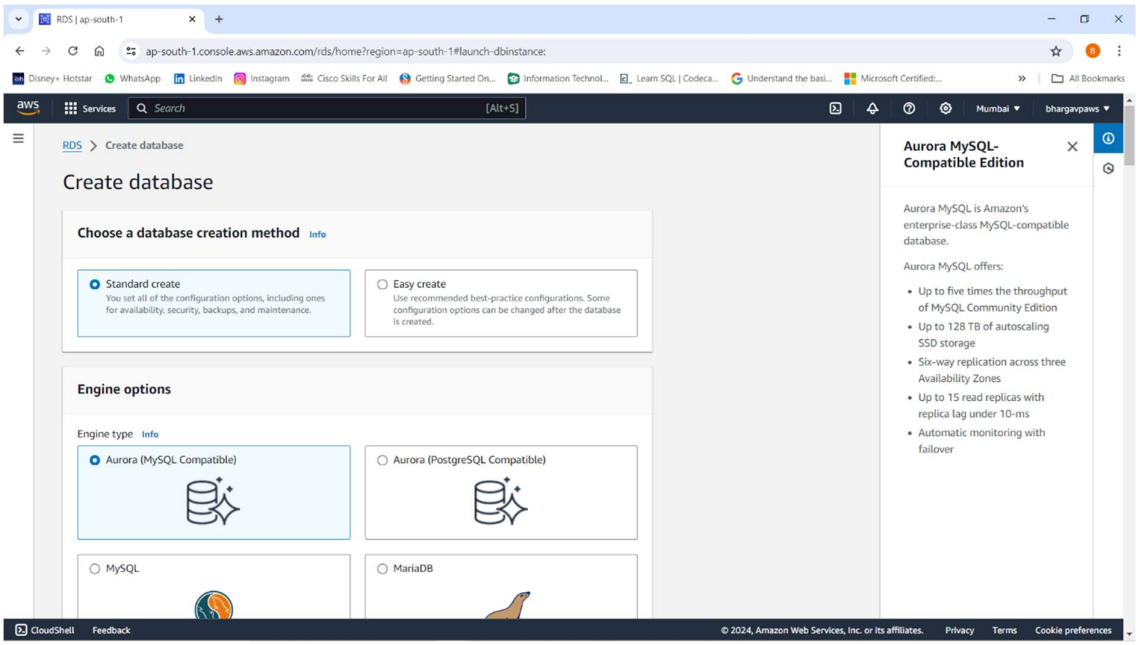
It is simply called serverless computing or you just need to provide a code of your application to aws and aws itself manage everything in their end such as managing load on server, storage, type of instance etc…

Prerequisites

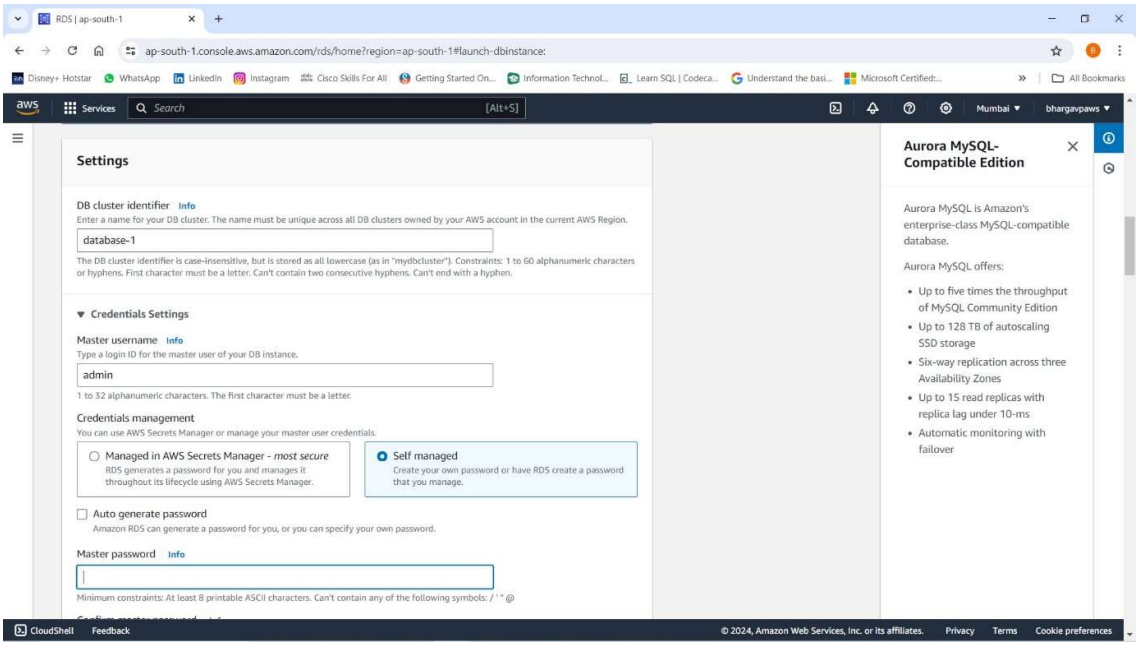
- An AWS account.
- An SSH key pair for EC2 instances.

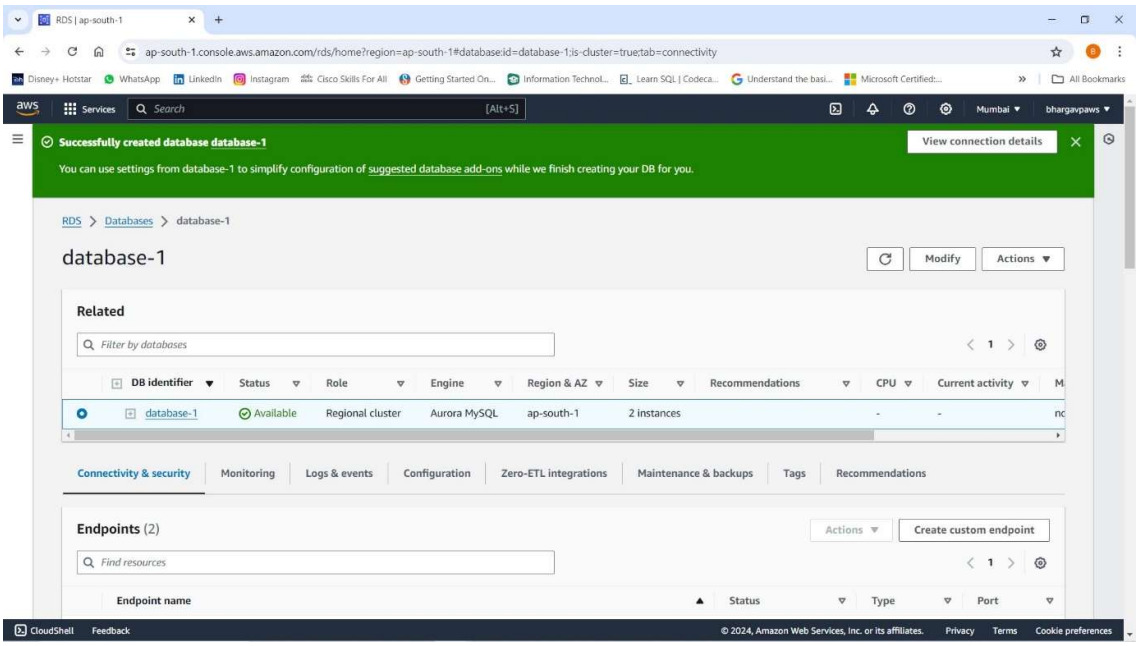
Launch RDS Database

1. **Search RDS on the AWS Console:**
    - Open the AWS Management Console.
    - In the search bar, type "RDS" and select it.
2. **Create Database:**
    - Click on "Create database."
    - Choose "Standard create."
    - Select "MySQL" as the engine.



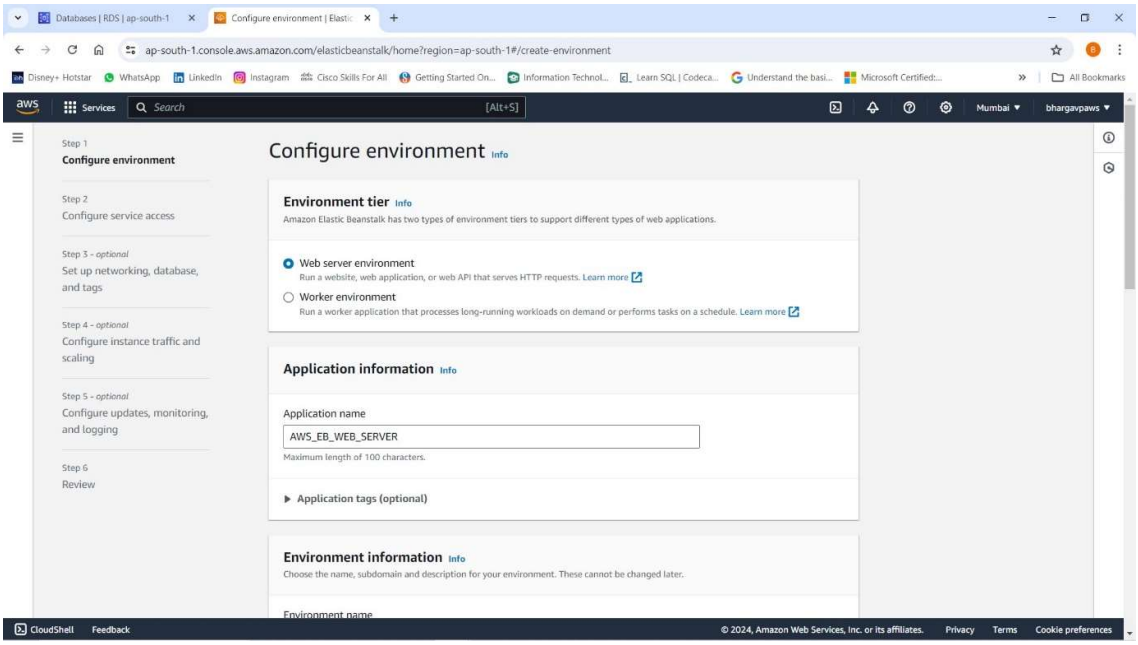
3. **Configure Database:**
    - Set a master username and password (or auto-generate the password).
    - Under "Additional configuration," give your database a name.
    - Keep other settings as default.
    - Click on "Create database."
    - It takes up to 3-4 minutes to configure.



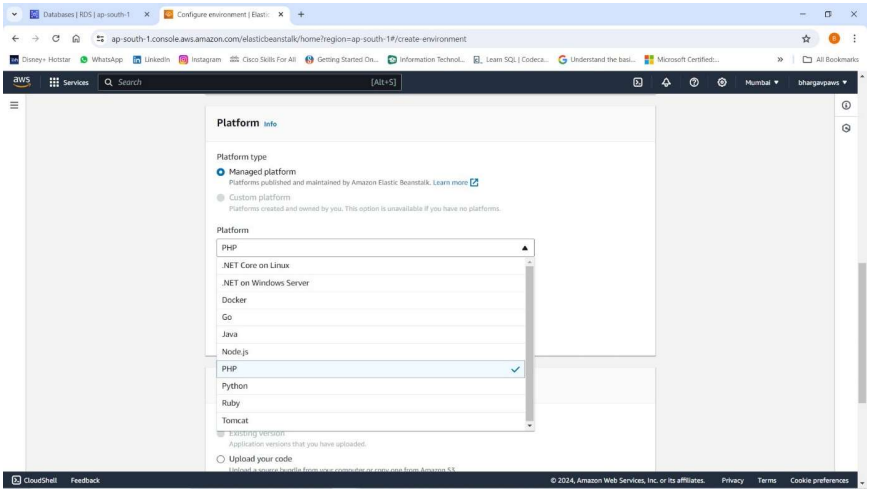


Launch Elastic Beanstalk Environment

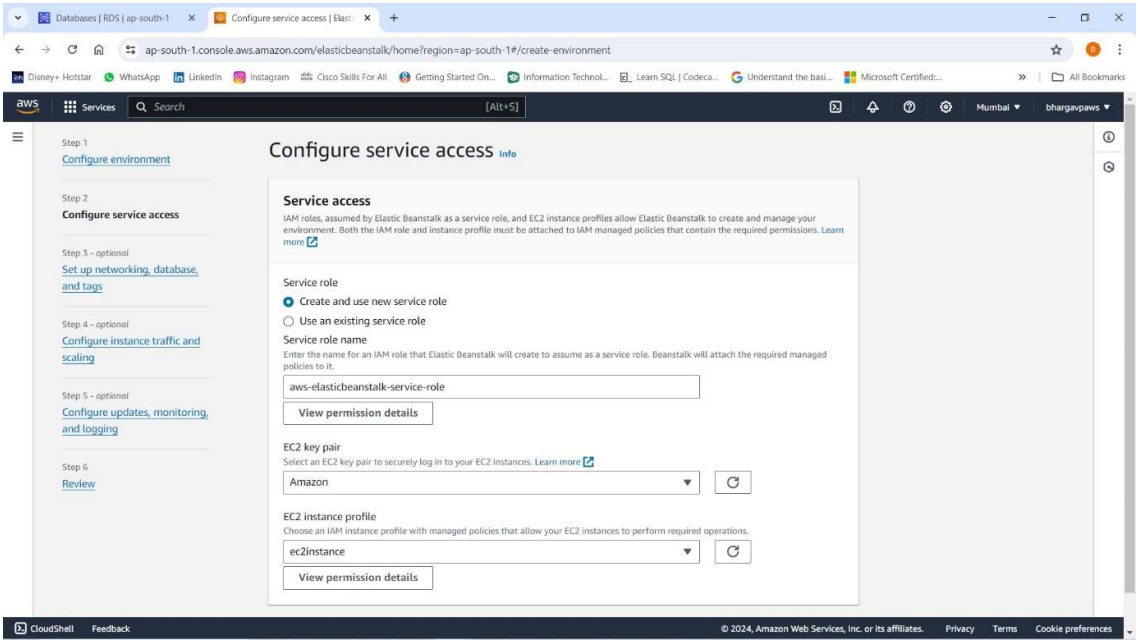
1. **Search Elastic Beanstalk on the AWS Console:**
    - In the search bar, type "Elastic Beanstalk" and select it.
    - Click on "Create application."
2. **Configure Application:**
    - Choose "Web server environment."
    - Provide a name for your application.



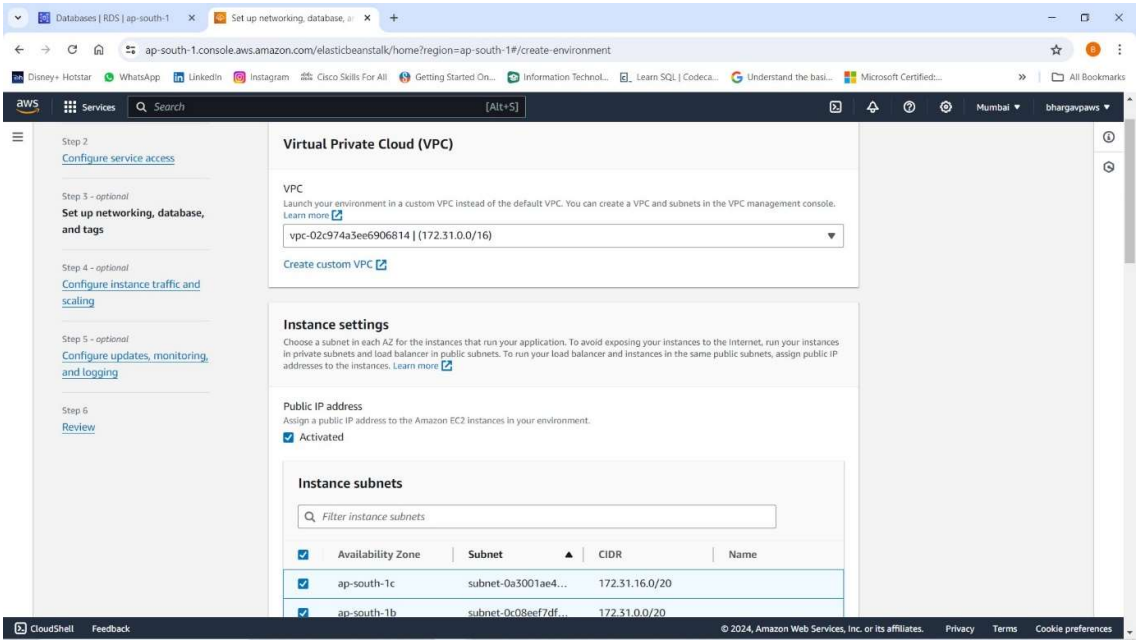
3. **Choose Platform:**
    - Select "PHP" from the managed platform options.
    - Click "Next."



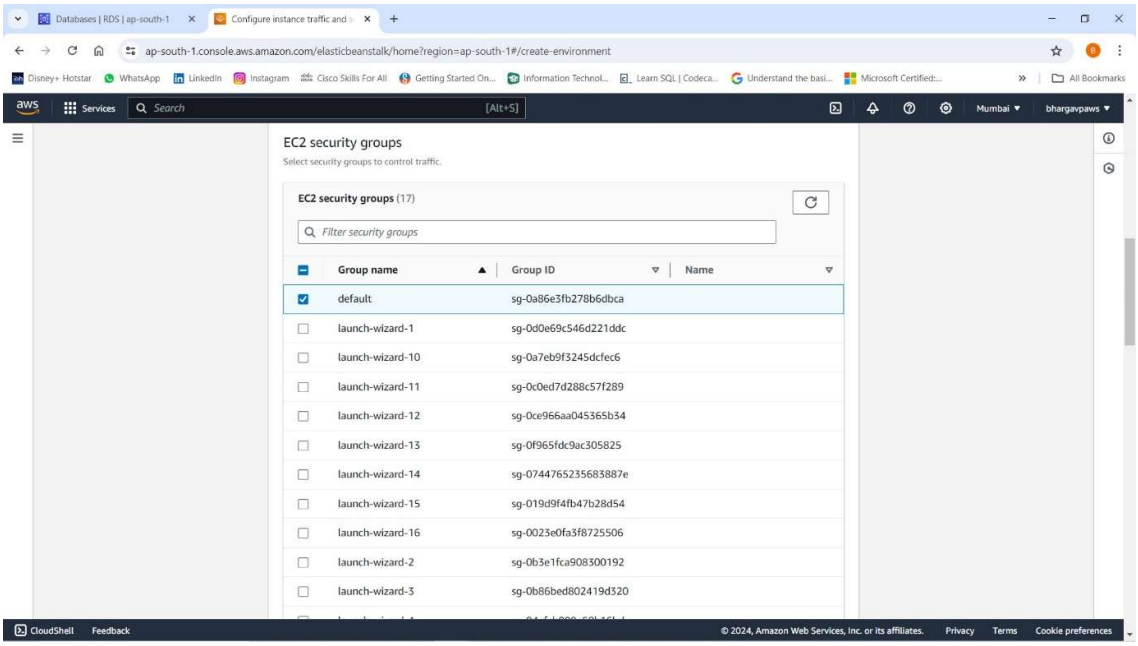
4. **Service Role:**
    - Click "Create a new service role."
    - Select aws-elasticbeanstalk-service-role.



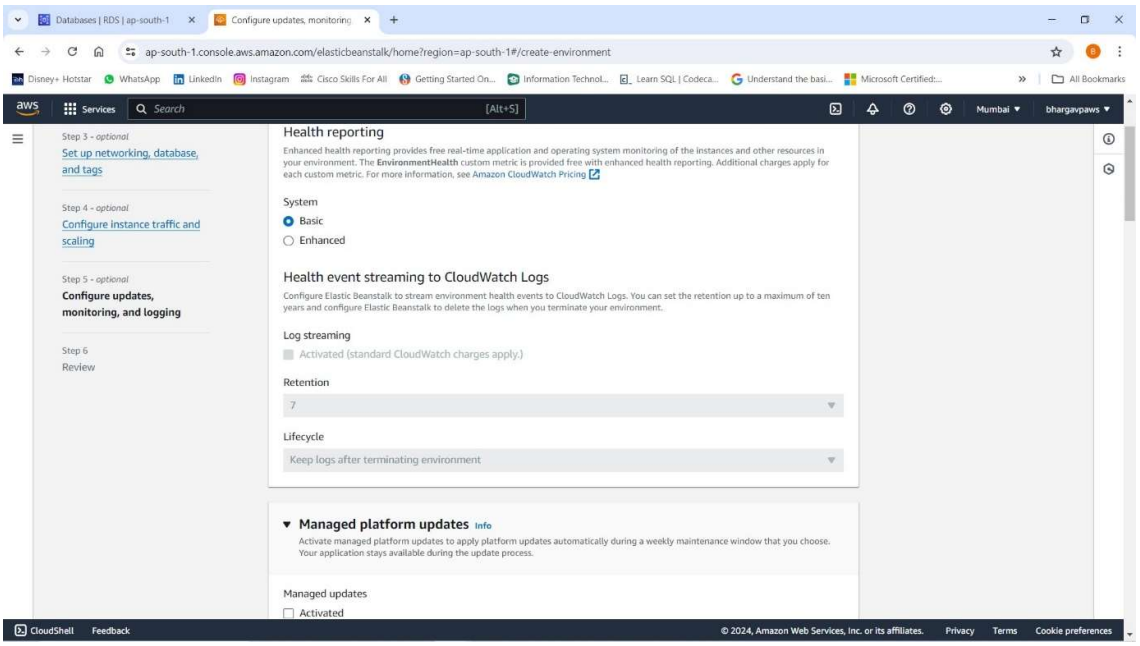
5. **EC2 Key Pair and Instance Profile:**
    - Choose your EC2 key pair.
    - Set the EC2 instance profile to ec2instance.
    - Note: Ensure the key pair is available on your local machine.
6. **VPC and Subnets:**
    - Select the default VPC.
    - Choose the appropriate instance and database subnets.
    - Click "Next."



7. **Security Groups:**
    - Select the default security group.
    - Click "Next."



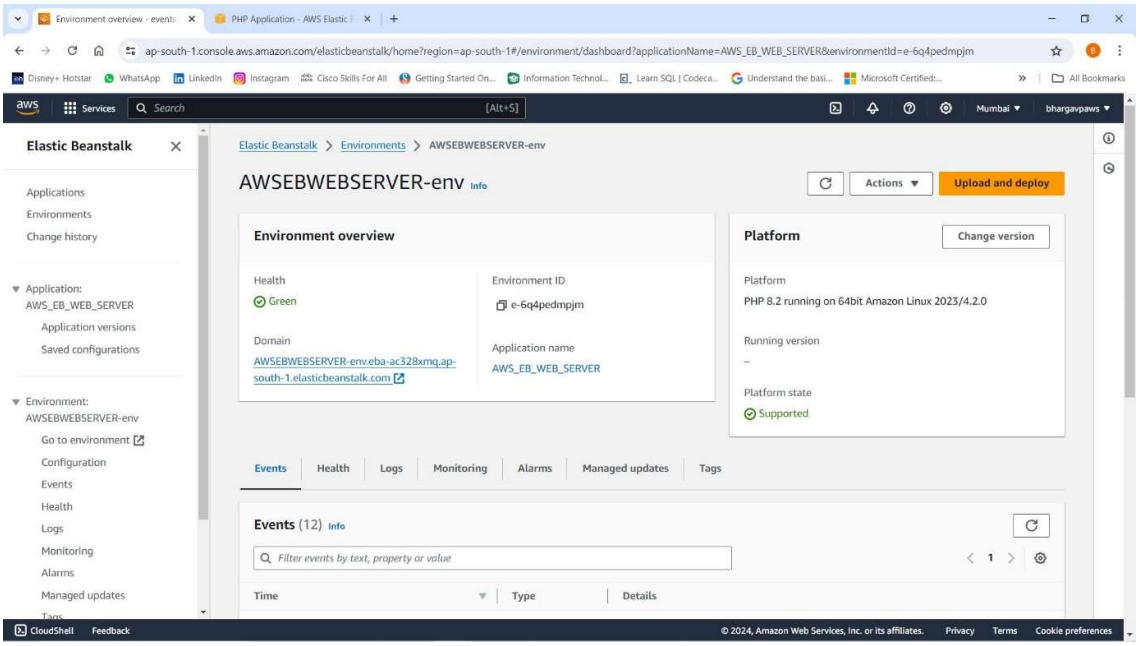
8. **Health Reporting:**
    - Choose "Basic" health reporting.
    - Untick the "Managed updates" option.
    - Click "Next."



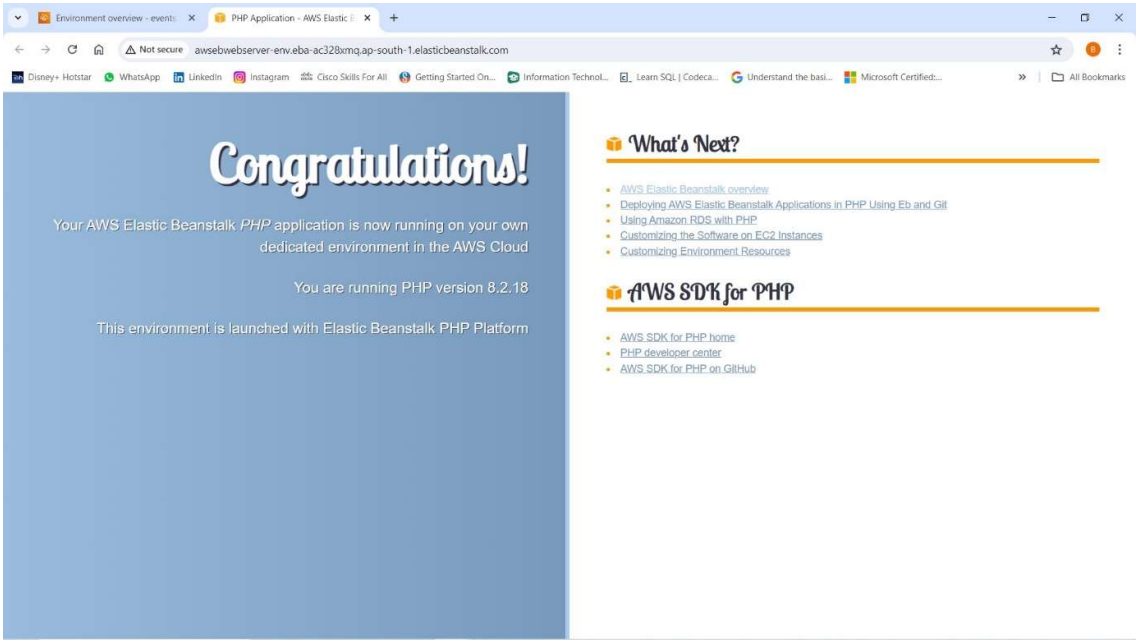
9. **Connect to Database:**
    - Add the following environment properties:
        - RDS_HOSTNAME: The hostname of the DB instance (found under the Connectivity & security tab in the RDS console).
        - RDS_PORT: The port where the DB instance accepts connections (found under the Connectivity & security tab in the RDS console).
        - RDS_DB_NAME: The database name, typically ebdb (found under the Configuration tab in the RDS console).
        - RDS_USERNAME: The master username you configured for your database (found under the Configuration tab in the RDS console).
        - RDS_PASSWORD: The master password you configured (not available in the RDS console, use what you set initially).

Property	Value
RDS_HOSTNAME	your-db-instance-endpoint
RDS_PORT	3306
RDS_DB_NAME	ebdb
RDS_USERNAME	your-db-username
RDS_PASSWORD	your-db-password

10. **Review and Create:**
    - Review your configuration.
    - Click on "Submit."
    - It takes around 5 minutes to create your application.



- Once created, you will receive a URL to access your Elastic Beanstalk environment.



Download WordPress

1. **Prepare Your Environment:**
   - Open your terminal and create a directory:

     mkdir git
     cd ~/git

2. **Install Git:**
   - If not already installed:

     sudo apt-get update # If the instance created is ubuntu machine.
     sudo apt-get install git If it is a centos or Linux use according commands.

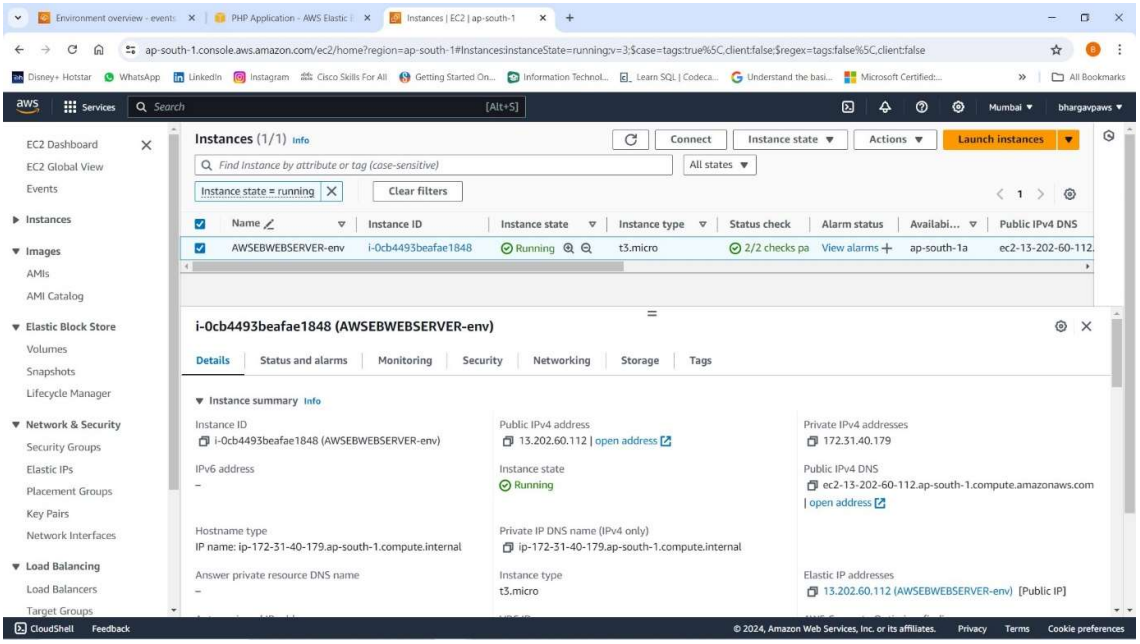
3. **Clone WordPress Repository:**
   - Clone the repository:

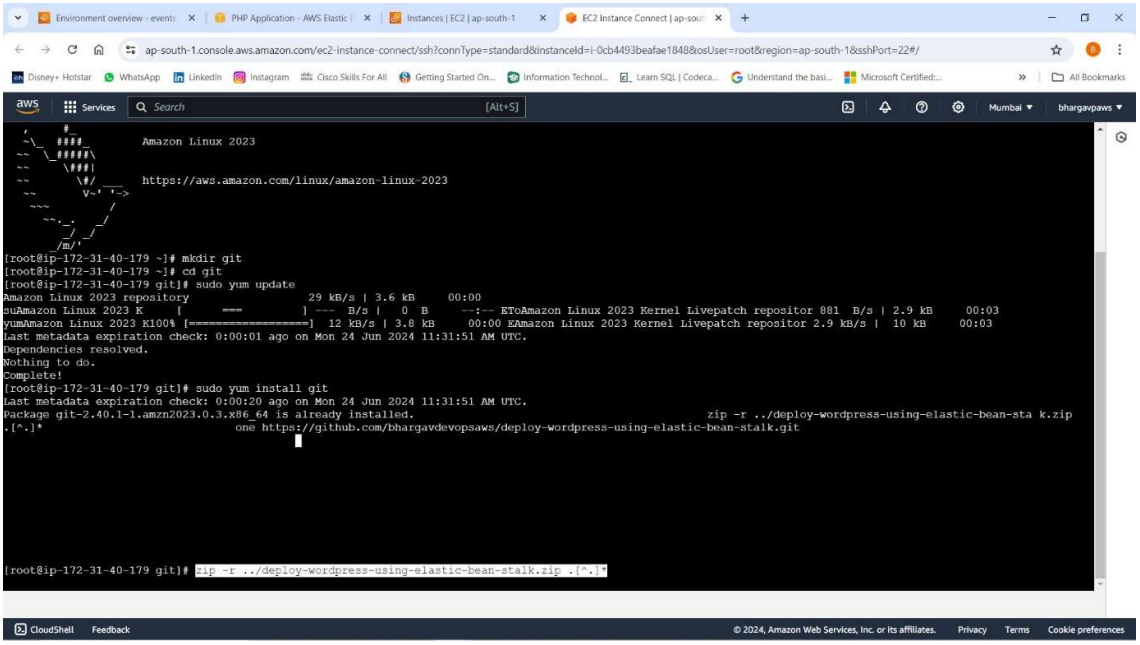
     git clone https://github.com/user-name/deploy-wordpress-

4. **Zip the WordPress Files:**
    - Create a zip file of the WordPress files:

zip -r ../your_folder_name.zip .[^.]*

eg: zip -r ../deploy-elasticbeanstalk-using-wordpress-.zip .[^.]*





Upload and Deploy WordPress

1. **Upload to Elastic Beanstalk:**
    - Go to your Elastic Beanstalk console.
    - Select the environment you created.
    - Choose the "Upload and deploy" option.
    - Select the WordPress zip file you created and click on "Deploy."
    - Deployment takes around 5 minutes.

If 404 error occurs follow these steps

2. **Fix 404 Nginx Not Found Error:**
    - Go to the EC2 dashboard.
    - Find the instance created by Elastic Beanstalk.
    - Copy the public IP address of the instance.
3. **SSH into the EC2 Instance:**
    - Open your terminal and SSH into the instance:

      ssh -i <your-key-pair-name> ec2-user@<public-ip>

4. **Move WordPress Files:**
    - Switch to the superuser:

      sudo su

    - Navigate to the HTML directory:

      cd /var/www/html/

    - Move the WordPress files:

      mv wordpress/* /var/www/html/

- Remove the empty WordPress directory:

  rm -rf wordpress

5. **Access Your WordPress Site:**
   - Return to the Elastic Beanstalk console.
   - Click on the provided URL.
   - You should see the WordPress setup page.