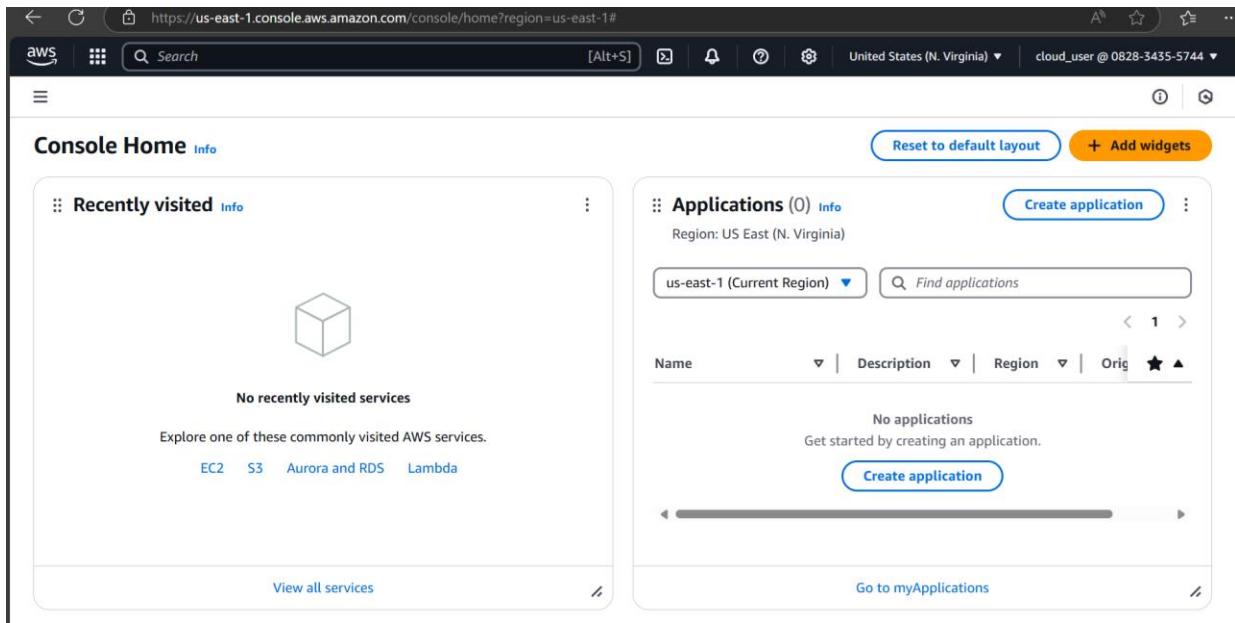


## Screenshots

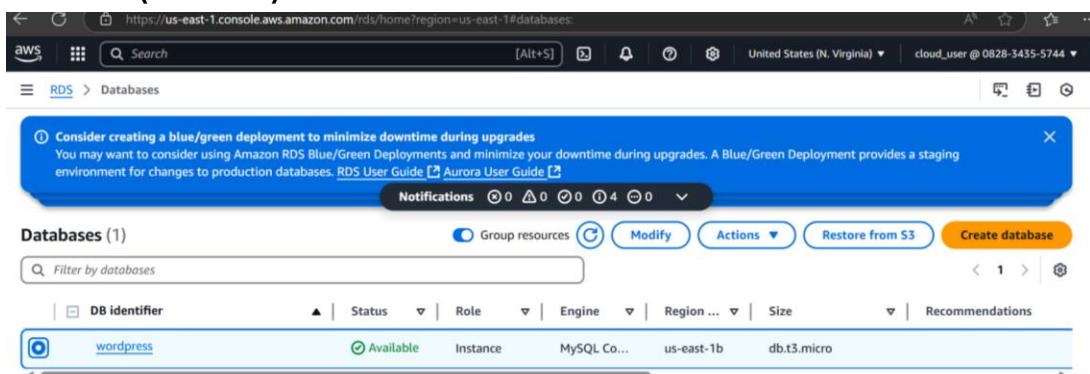
### 1. Logging into AWS and Verifying Region

 **Screenshot:** AWS Management Console with **us-east-1 (N. Virginia)** selected.



### 2. Enabling Multi-AZ Deployment

 **Screenshot 1:** Modify DB Instance screen, showing the option "**Create a standby instance (Multi-AZ)**" selected.



The screenshot shows the 'Modify DB instance' page for a MySQL database named 'wordpress'. Under 'Multi-AZ deployment', the 'Create a standby instance (recommended for production usage)' option is selected. In the 'Connectivity' section, 'IPv4' is chosen for the network type. The 'DB subnet group' is set to 'cfst-3048-0a25a1c3ef868eb39a72ab34c638dcc3180de5c9e2044660b7a9adcc0317d696-dbsubnetgroup-ztad...'. The 'Security group' dropdown shows 'Choose security groups' and lists 'cfst-3048-0a25a1c3ef868eb39a72ab34c638dcc3180de5c9e2044660b7a9adcc0317d696-DatabaseSecurityGroup-WJxf5dzXhVBM'.

✓ Screenshot 2: Databases page showing Status = Modifying after enabling Multi-AZ.

The screenshot shows the 'Databases' page in the AWS RDS console. A green notification bar at the top says 'Successfully modified wordpress.' Below it, the 'Notifications' section shows 0 errors, 0 warnings, 1 info, 4 pending, and 0 success. The main table lists one database: 'wordpress' (Status: Available, Instance: MySQL Community Server, Region: us-east-1b, Engine: db.t3.micro). The left sidebar includes links for Dashboard, Databases (selected), Query Editor, Performance insights, Snapshots, Exports in Amazon S3, Automated backups, Reserved instances, Proxies, Subnet groups, Parameter groups, Option groups, Custom engine versions, Zero-ETL integrations, Events, CloudShell, and Feedback. The bottom status bar shows the date and time as 3/21/2025, 7:29 PM.

✓ **Screenshot 3: Events page confirming Multi-AZ conversion event.**

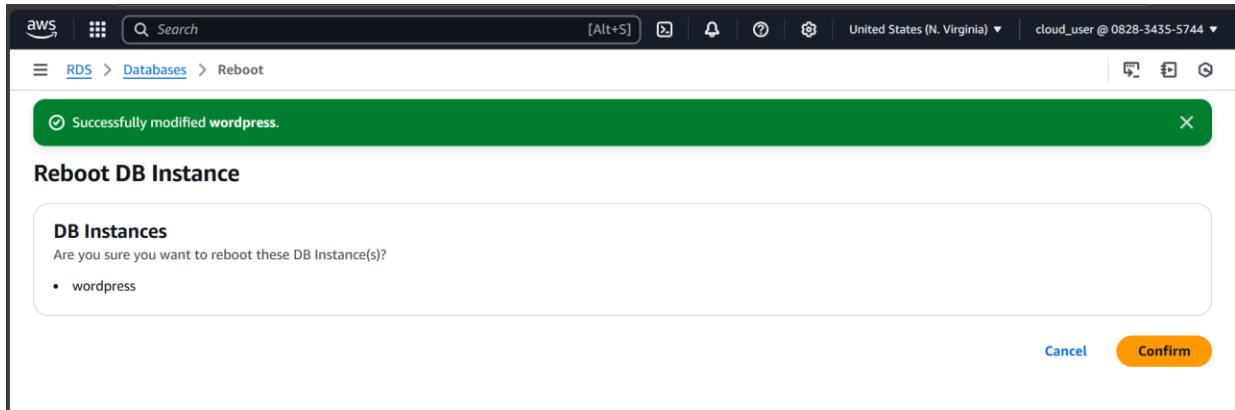
The screenshot shows the AWS RDS Databases page. At the top, a green notification bar says "Successfully modified wordpress." Below it, there's a "Notifications" section with 1 new event. The main area shows a table for "Databases (1)". The single database entry is "wordpress", which is "Available". It's an "Instance" of "MySQL Co..." in the "us-east-1b" region, with a "db.t3.micro" configuration. There are buttons for "Group resources", "Modify", "Actions", "Restore from S3", and "Create database". A "Filter by databases" input field is also present.

## Track events performed

The screenshot shows the AWS RDS Events page. At the top, a green notification bar says "Successfully modified wordpress." Below it, there's a "Events (6)" section. The table lists six events:

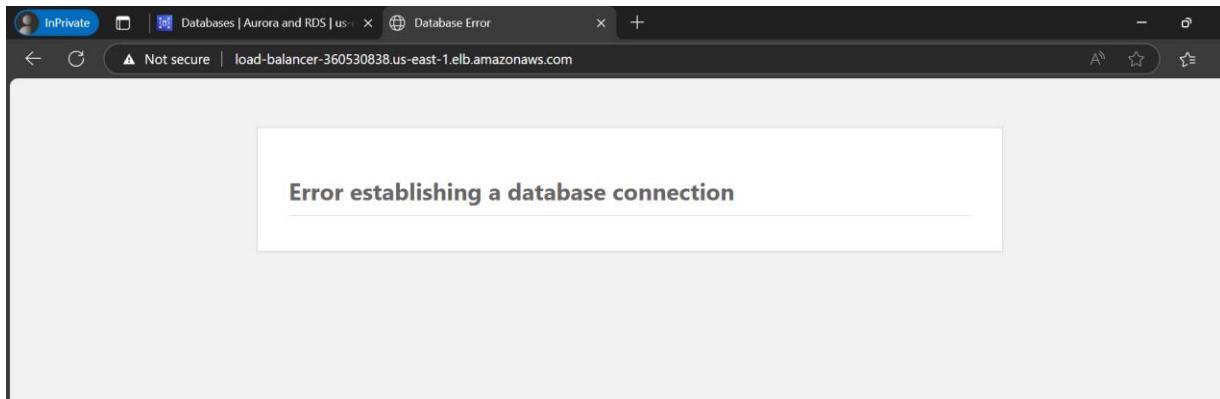
Source	Type	Time	Message
wordpress	Instances	March 21, 2025, 19:04 (UTC+05:30)	Finished DB Instance backup
rds:wordpress-2025-03-21-13-31	Snapshots	March 21, 2025, 19:04 (UTC+05:30)	Automated snapshot created
rds:wordpress-2025-03-21-13-31	Snapshots	March 21, 2025, 19:02 (UTC+05:30)	Creating automated snapshot
wordpress	Instances	March 21, 2025, 19:02 (UTC+05:30)	Backing up DB instance
wordpress	Instances	March 21, 2025, 19:01 (UTC+05:30)	DB instance created
wordpress	Instances	March 21, 2025, 19:01 (UTC+05:30)	DB instance restarted

✓ Screenshot 4: Reboot DB Instance screen showing "Reboot With Failover?" selected.

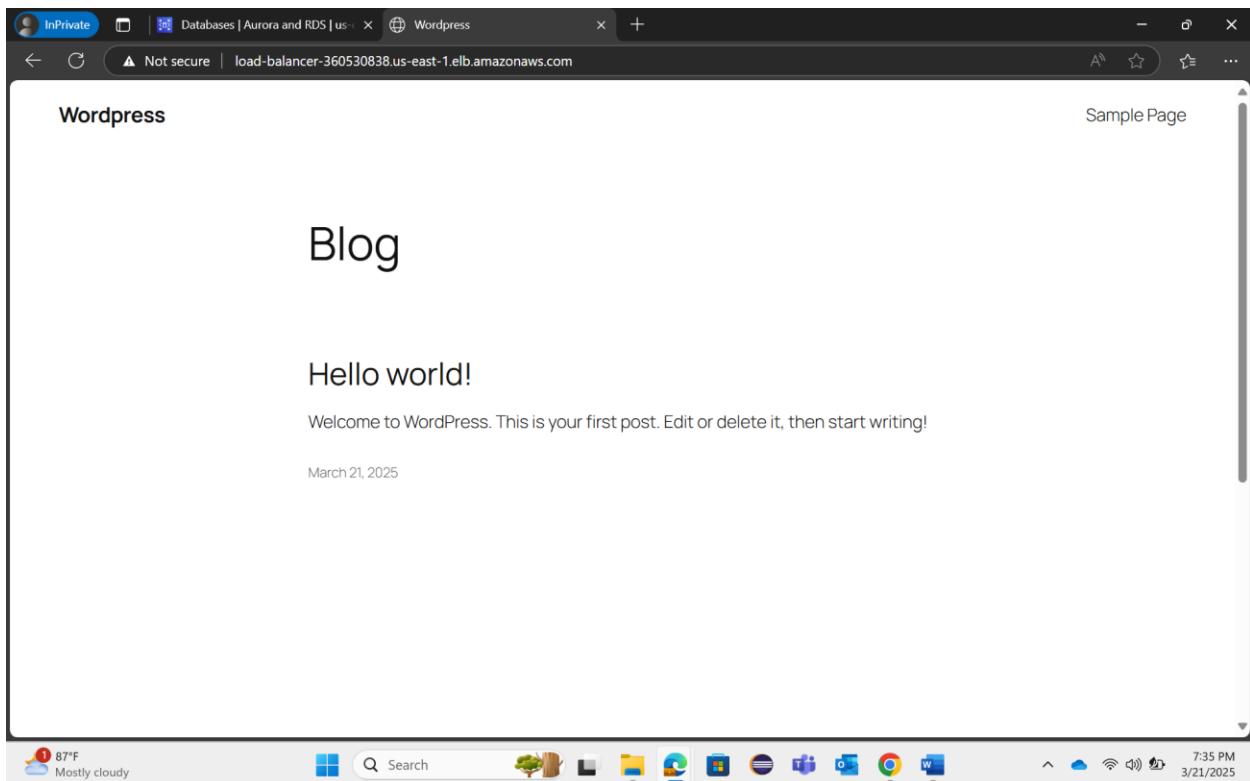


The screenshot shows the 'Amazon RDS' Databases page. The left sidebar includes links for Dashboard, Databases (which is selected), Query Editor, Performance insights, Snapshots, Exports in Amazon S3, Automated backups, Reserved instances, Proxies, Subnet groups, Parameter groups, Option groups, Custom engine versions, and Zero-ETL integrations. The main area displays a table for 'Databases (1)'. The table has columns: DB identifier, Status, Role, Engine, Region ..., and Size. One row is shown for 'wordpress'. Above the table, there is a green success message: 'Successfully modified wordpress.' and a 'Notifications' bar. Action buttons include 'Group resources', 'Modify', 'Actions', 'Restore from S3', and 'Create database'.

✓ **Screenshot 5: Events page after failover, showing the instance switch.**



✓ **Screenshot 6: Web page (before and after refresh) to show minimal downtime.**



The screenshot shows the AWS RDS Events page. At the top, there are three tabs: "InPrivate", "Aurora and RDS | us-east-1", and "Wordpress". The "Wordpress" tab is active. Below the tabs, the URL is https://us-east-1.console.aws.amazon.com/rds/home?region=us-east-1#event-list:. The main content area is titled "Events (10)" and contains a table of events. The table has columns: Source, Type, Time, and Message. The events listed are:

Source	Type	Time	Message
wordpress	Instances	March 21, 2025, 19:35 (UTC+05:30)	DB instance restarted
wordpress	Instances	March 21, 2025, 19:35 (UTC+05:30)	DB instance shutdown
wordpress	Instances	March 21, 2025, 19:32 (UTC+05:30)	DB instance restarted
wordpress	Instances	March 21, 2025, 19:32 (UTC+05:30)	DB instance shutdown
wordpress	Instances	March 21, 2025, 19:04 (UTC+05:30)	Finished DB Instance backup
rds:wordpress-2025-03-21-13-31	Snapshots	March 21, 2025, 19:04 (UTC+05:30)	Automated snapshot created
rds:wordpress-2025-03-21-13-31	Snapshots	March 21, 2025, 19:02 (UTC+05:30)	Creating automated snapshot
wordpress	Instances	March 21, 2025, 19:02 (UTC+05:30)	Backing up DB instance
wordpress	Instances	March 21, 2025, 19:01 (UTC+05:30)	DB instance created

At the bottom of the page, there are links for "CloudShell" and "Feedback". The status bar at the bottom right shows the date and time: 3/21/2025, 7:36 PM.

### 3. Creating a Read Replica

✓ Screenshot 7: Create Read Replica screen, with "wordpress-rr" as the identifier.

The screenshot shows the "Create read replica" screen. The URL is https://us-east-1.console.aws.amazon.com/rds/home?region=us-east-1#create-read-replica&id=wordpress&is-cluster=false&isHermesDB=false. The main content area is titled "Create read replica". A green success message at the top says "Successfully modified wordpress.". Below the message, there is a note: "You are creating a replica DB instance from a source DB instance. This new DB instance will have the source DB instance's DB security groups and DB parameter groups." On the left, there is a progress bar icon. On the right, there are "Cancel" and "Create read replica" buttons. The "Create read replica" button is highlighted with an orange border.

The screenshot shows the 'Create read replica' page in the AWS RDS console. At the top, a green success message box displays: 'Successfully modified wordpress.' Below it, the heading 'Create read replica' is followed by the sub-instruction: 'You are creating a replica DB instance from a source DB instance. This new DB instance will have the source DB instance's DB security groups and DB parameter groups.' The 'Settings' section contains fields for 'Replica source' (set to 'wordpress') and 'DB instance identifier' (set to 'wordpress-rr'). The 'Instance configuration' section includes a 'DB instance class' dropdown set to 'Info' and a 'Hide filters' link.

✓ Screenshot 8: Databases page showing new read replica with Status = Creating.

The image consists of two vertically stacked screenshots of the AWS RDS 'Databases' page. Both screenshots show a blue notification bar at the top stating: 'Creating replica wordpress-rr in US East (N. Virginia) Your database might take a few minutes to launch.' The first screenshot shows a table titled 'Databases (2)' with two entries: 'wordpress' (Primary, MySQL Community Engine, us-east-1b, db.t3.micro) and 'wordpress-rr' (Replica, MySQL Community Engine, -, db.t3.micro). The second screenshot shows a table titled 'Databases (1)' with one entry: 'wordpress-rr' (Creating, Replica, MySQL Community Engine, -, db.t3.micro).

✓ Screenshot 9: Events page confirming read replica creation.

The screenshot shows the AWS RDS Events page. At the top, there is a blue banner with the text "Consider creating a blue/green deployment to minimize downtime during upgrades". Below the banner, the "Databases" section is displayed with a table. The table has two rows:

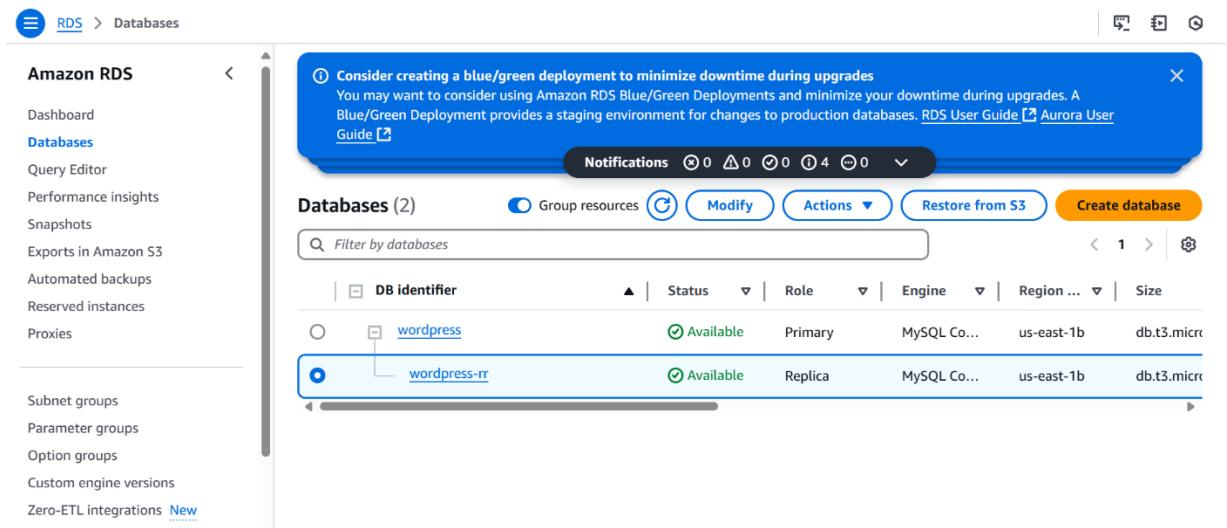
DB identifier	Status	Role	Engine	Region ...	Size	Recommendations
wordpress	Available	Primary	MySQL Co...	us-east-1b	db.t3.micro	
wordpress-rr	Creating	Replica	MySQL Co...	us-east-1b	db.t3.micro	

The screenshot shows the AWS RDS Databases page. On the left, there is a sidebar with the "Amazon RDS" menu. The "Databases" option is selected. The main content area displays the same database list as the previous screenshot:

DB identifier	Status	Role	Engine	Region ...	Size	Recommendations
wordpress	Available	Primary	MySQL Co...	us-east-1b	db.t3.micro	
wordpress-rr	Modifying...	Replica	MySQL Co...	us-east-1b	db.t3.micro	

## 4. Promoting the Read Replica

✓ Screenshot 10: Promote Read Replica screen showing "wordpress-rr" selected.



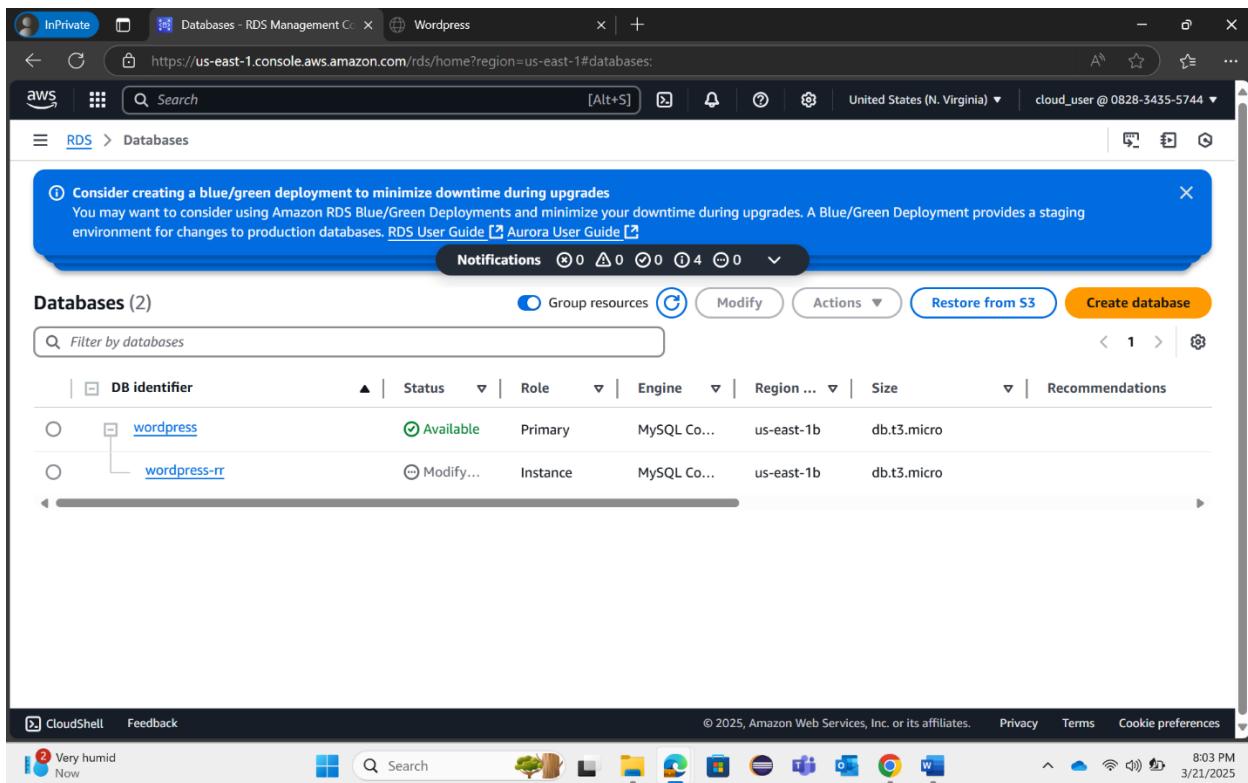
The screenshot shows the Amazon RDS Databases page. A modal dialog at the top right provides a tip about blue/green deployments. Below it, the main interface shows two database entries in a table:

DB identifier	Status	Role	Engine	Region ...	Size
wordpress	Available	Primary	MySQL Co...	us-east-1b	db.t3.micro
wordpress-rr	Available	Replica	MySQL Co...	us-east-1b	db.t3.micro

The entry for "wordpress-rr" is highlighted with a blue selection bar. The "Actions" button is visible above the table.

✓ Screenshot 11: Databases page showing Status = Modifying after promotion.

✓ Screenshot 12: Role change from Replica → Instance in DB details.

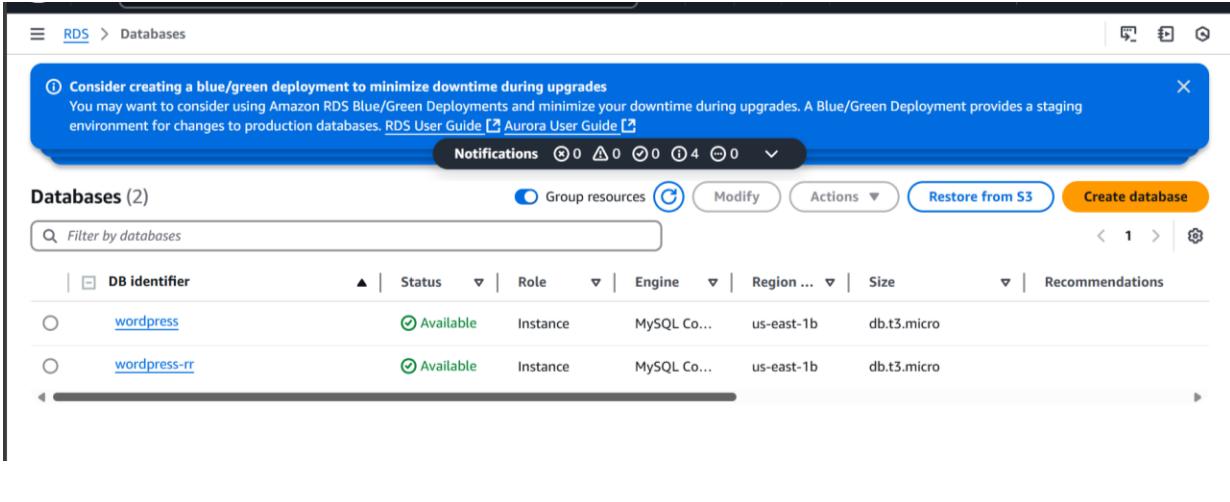


The screenshot shows the same Amazon RDS Databases page as before, but now the "wordpress-rr" entry has a status of "Modifying". The table data is as follows:

DB identifier	Status	Role	Engine	Region ...	Size
wordpress	Available	Primary	MySQL Co...	us-east-1b	db.t3.micro
wordpress-rr	Modifying...	Instance	MySQL Co...	us-east-1b	db.t3.micro

The "Actions" button is visible above the table.

## Screenshot 13: Events page confirming promotion success

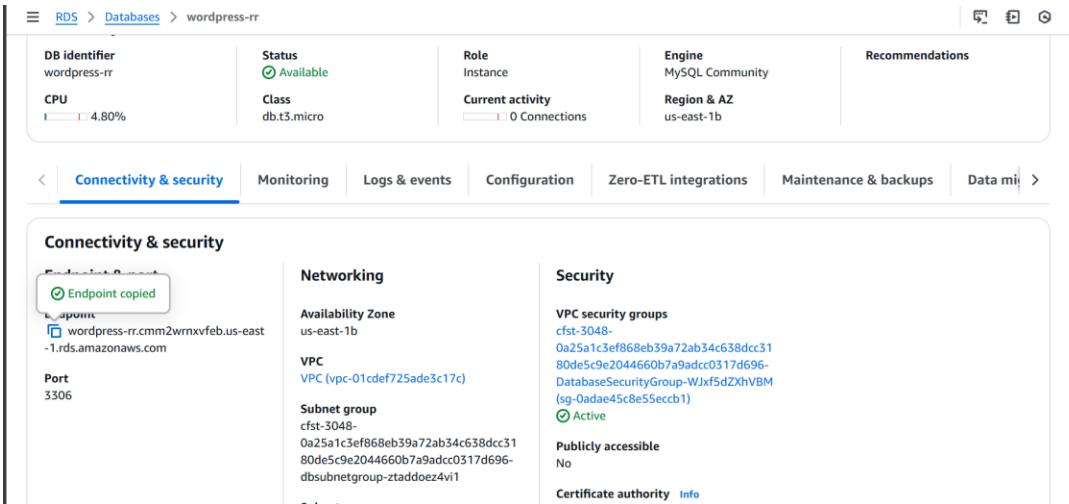


The screenshot shows the AWS RDS Databases page. At the top, there is a blue banner with a warning message about creating a blue/green deployment. Below the banner, the 'Databases (2)' section is displayed. It lists two MySQL instances: 'wordpress' and 'wordpress-rr'. Both instances are marked as 'Available' and belong to the 'us-east-1b' region. The table includes columns for DB identifier, Status, Role, Engine, Region, Size, and Recommendations.

DB identifier	Status	Role	Engine	Region ...	Size	Recommendations
wordpress	Available	Instance	MySQL Co...	us-east-1b	db.t3.micro	
wordpress-rr	Available	Instance	MySQL Co...	us-east-1b	db.t3.micro	

## 5. Updating Route 53 CNAME Record

### Screenshot 14: Route 53 Hosted Zones page showing the existing CNAME record pointing to the old endpoint.



The screenshot shows the AWS RDS Databases page for the 'wordpress-rr' instance. The 'Connectivity & security' tab is selected. A green box highlights the 'Endpoint copied' message, which indicates that the endpoint has been successfully updated. Other tabs include Monitoring, Logs & events, Configuration, Zero-ETL integrations, Maintenance & backups, and Data migration.

DB identifier	Status	Role	Engine	Recommendations
wordpress-rr	Available	Instance	MySQL Community	

**Connectivity & security**

Endpoint	Networking	Security
Endpoint copied aws.amazon.com wordpress-rr.crm2wrnxvfeb.us-east-1.rds.amazonaws.com	Availability Zone: us-east-1b VPC: VPC (vpc-01cdef725ade3c17c) Subnet group: cfst-3048-0a25a1c3ef868eb39a72ab34c638dcc31	VPC security groups: cfst-3048-0a25a1c3ef868eb39a72ab34c638dcc31 80de5c9e2044660b7a9adcc0317d696-DatabaseSecurityGroup-WJxf5dZXhVBM (sg-0ad4e45c8e55eccb1) Publicly accessible: No Certificate authority: Info

Route 53 > Hosted zones > mydomain.local

Hosted zone details

Records (3) Hosted zone tags (1)

**Records (3) Info**

Automatic mode is the current search behavior optimized for best filter results. [To change modes go to settings.](#)

Record ...	Type	Routine...	Differ...	Alias	Value/Route traffic to	TTL (s...)	Health ...	Evalu...
mydomai...	NS	Simple	-	No	ns-1536.awsdns-00.co.uk. ns-0.awsdns-00.com. ns-1024.awsdns-00.org. ns-512.awsdns-00.net.	172800	-	-
mydomai...	SOA	Simple	-	No	ns-1536.awsdns-00.co.uk. a...	900	-	-
db.mydo...	CNAME	Simple	-	No	wordpress.cmm2wrnxvfeb.us...	60	-	-

Route 53 > Hosted zones > mydomain.local

Hosted zone details

Records (3) Hosted zone tags (1)

**Records (1/3) Info**

Automatic mode is the current search behavior optimized for best filter results. [To change modes go to settings.](#)

Record ...	Type	Routine...	Differ...	Alias	Value/Route traffic to
mydomai...	NS	Simple	-	No	ns-1536.awsdns-00.co.uk. ns-0.awsdns-00.com. ns-1024.awsdns-00.org. ns-512.awsdns-00.net.
mydomai...	SOA	Simple	-	No	ns-1536.awsdns-00.co.uk. a...
<b>db.mydo...</b>	<b>CNAME</b>	<b>Simple</b>	<b>-</b>	<b>No</b>	<b>wordpress.cmm2wrnxvfeb.u...</b>

**Edit record**

Record name .mydomain.local  
Keep blank to create a record for the root domain.

Record type CNAME – Routes traffic to another domain...

Alias

Value

wordpress.cmm2wrnxvfeb.us-east-1.rds.amazonaws.com

Enter multiple values on separate lines.

TTL (seconds) 60 1m 1h 1d  
Recommended values: 60 to 172800 (two days)

Routing policy

✓ Screenshot 15: Edit Record screen with new endpoint pasted.

✓ Screenshot 16: Updated CNAME record in Route 53 reflecting the new endpoint.

The screenshot shows the AWS Route 53 Hosted Zones interface. A blue banner at the top indicates that the record 'db.mydomain.local' was successfully updated. Below this, the 'Records (3)' section lists three records: an NS record for 'mydomain.local', an SOA record for 'mydomain.local', and a CNAME record for 'db.mydomain.local' pointing to 'wordpress-rr.cmm2wrmxvfe1.1.rds.amazonaws.com'. The CNAME record is selected. To the right, a 'Record details' panel shows the record name as 'db.mydomain.local', type as 'CNAME', value as 'wordpress-rr.cmm2wrmxvfe1.1.rds.amazonaws.com', alias status as 'No', TTL as '60', and routing policy as 'Simple'.

**Screenshot 17: Web page after updating Route 53, showing no downtime.**

The screenshot shows a web browser window with multiple tabs. The active tab displays a WordPress blog post titled 'Hello world!'. The post content reads: 'Welcome to WordPress. This is your first post. Edit or delete it, then start writing!' and is dated 'March 21, 2025'. The browser's status bar at the bottom shows the date and time as '8:21 PM 3/21/2025'.