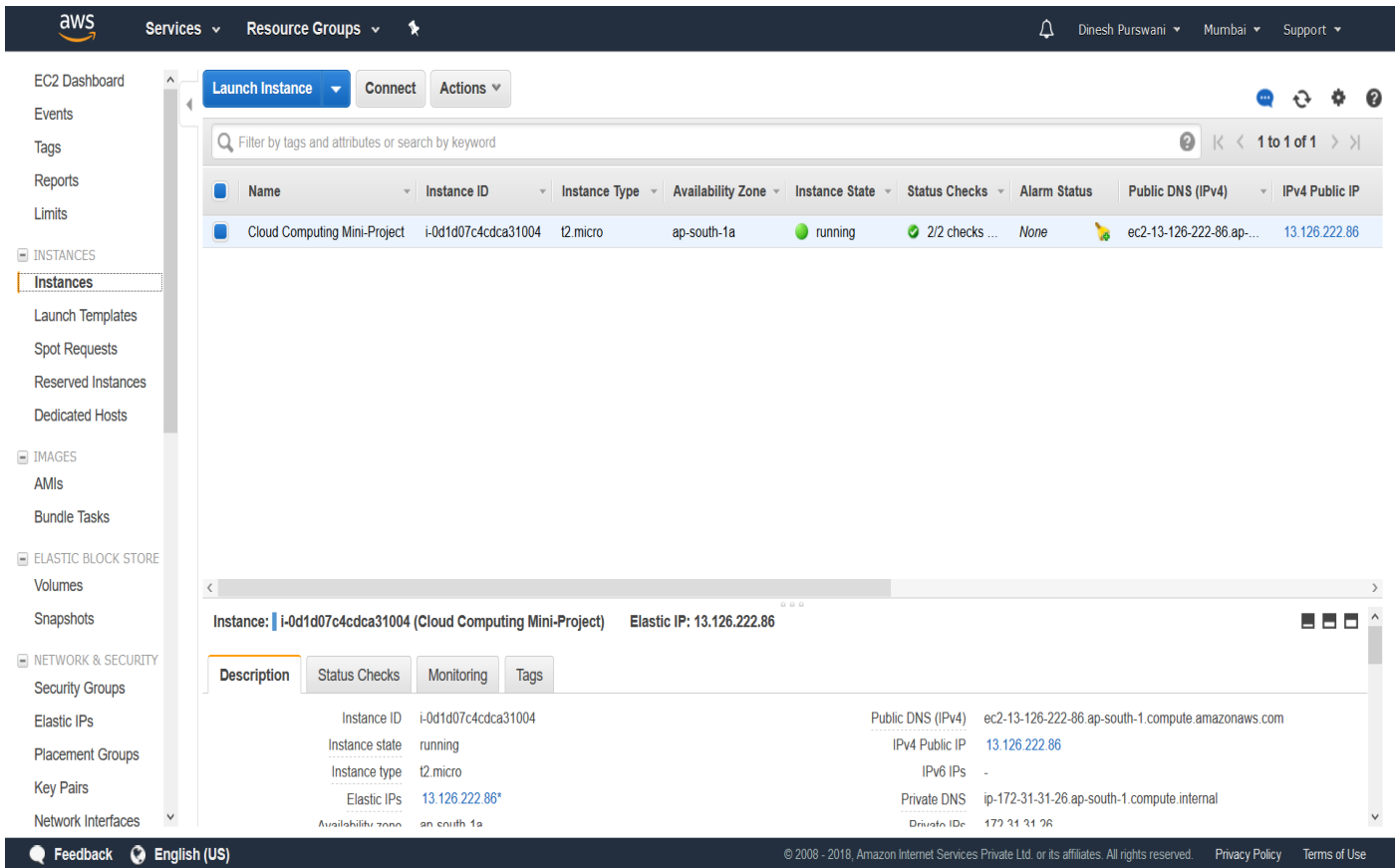


# Deploy website on AWS and secure using SSL Certificate

Step 1: Launch an EC2 Instance (Windows Server 2016) and allocate Elastic IP to it.



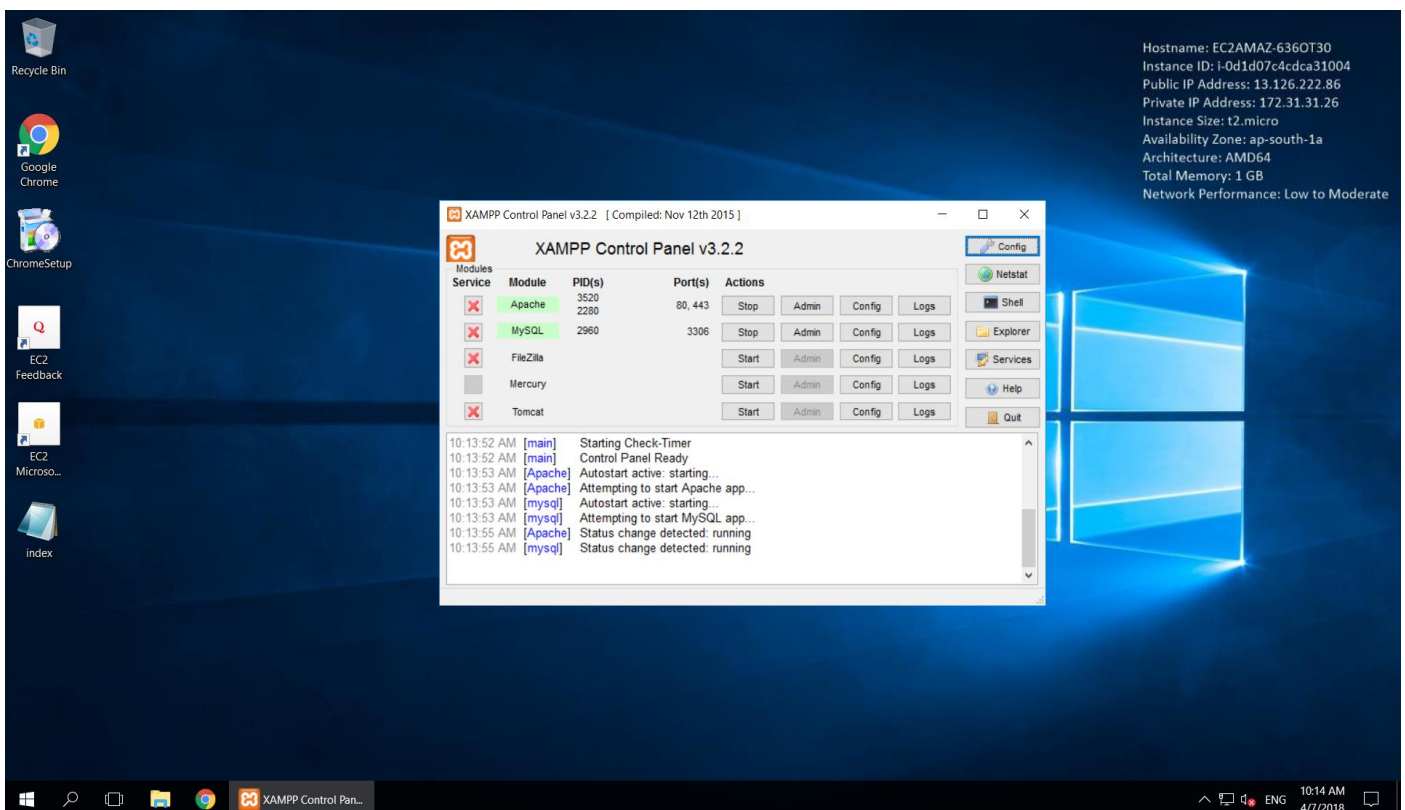
The screenshot shows the AWS Management Console interface. On the left, there is a navigation menu with options like EC2 Dashboard, Events, Tags, Reports, Limits, INSTANCES, Launch Templates, Spot Requests, Reserved Instances, Dedicated Hosts, IMAGES, AMIs, Bundle Tasks, ELASTIC BLOCK STORE, Volumes, Snapshots, NETWORK & SECURITY, Security Groups, Elastic IPs, Placement Groups, Key Pairs, and Network Interfaces. The main area displays the 'Instances' page. A table lists the instances, with one instance named 'Cloud Computing Mini-Project' highlighted. Below the table, the details for this instance are shown, including its ID, type, availability zone, state, status checks, alarm status, public DNS, and public IP.

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP
Cloud Computing Mini-Project	i-0d1d07c4cdca31004	t2.micro	ap-south-1a	running	2/2 checks ...	None	ec2-13-126-222-86.ap-...	13.126.222.86

Instance: i-0d1d07c4cdca31004 (Cloud Computing Mini-Project) Elastic IP: 13.126.222.86

Description	Status Checks	Monitoring	Tags
Instance ID: i-0d1d07c4cdca31004	Instance state: running	Instance type: t2.micro	Elastic IPs: 13.126.222.86*
Availability zone: ap-south-1a	Public DNS (IPv4): ec2-13-126-222-86.ap-south-1.compute.amazonaws.com	IPv4 Public IP: 13.126.222.86	IPv6 IPs: -
	Private DNS: ip-172-31-31-26.ap-south-1.compute.internal	Private IP: 172.31.31.26	

Step 2: Connect to the server using RDP. Install and run XAMPP on the server and place the PHP files of the website in the 'htdocs' folder.




The screenshot shows a Windows Server 2016 desktop environment. The desktop background is the standard Windows 7/8/10 blue background. On the left side, there are icons for Recycle Bin, Google Chrome, ChromeSetup, EC2 Feedback, EC2 Micro..., and index. In the center, a window titled 'XAMPP Control Panel v3.2.2' is open. The window shows the status of various services. The status bar at the bottom indicates the time is 10:14 AM on 4/7/2018.

Hostname: EC2AMAZ-636OT30  
Instance ID: i-0d1d07c4cdca31004  
Public IP Address: 13.126.222.86  
Private IP Address: 172.31.31.26  
Instance Size: t2.micro  
Availability Zone: ap-south-1a  
Architecture: AMD64  
Total Memory: 1 GB  
Network Performance: Low to Moderate

Service	Module	PID(s)	Port(s)	Actions
Apache	3520	2280	80, 443	Stop Admin Config Logs
MySQL	2980	3306	3306	Stop Admin Config Logs
FileZilla				Start Admin Config Logs
Mercury				Start Admin Config Logs
Tomcat				Start Admin Config Logs

10:13:52 AM [main] Starting Check-Timer  
10:13:52 AM [main] Control Panel Ready  
10:13:53 AM [Apache] Autostart active: starting...  
10:13:53 AM [Apache] Attempting to start Apache app...  
10:13:53 AM [mysql] Autostart active: starting...  
10:13:53 AM [mysql] Attempting to start MySQL app...  
10:13:55 AM [Apache] Status change detected: running  
10:13:55 AM [mysql] Status change detected: running

### Step 3: Register a domain name for the website and configure DNS for the same.



Services ▾Partners ▾About Freedom ▾Support ▾Hello Name ▾English ▾

## Managing royaltees.cf

InformationUpgradeManagement Tools ▾Manage Freedom DNS

### Information

To the right you can find the details of your domain. You can manage your domain using the tabs above.

[Back to Domains List](#)


**Domain:**  
royaltees.cf **ACTIVE**

**Registration Date:**  
29/03/2018

**Expiry date:**  
29/03/2019

### Step 4: Obtain SSL Certificate and verify your domain.

Secure | <https://www.sslforfree.com/create?generate&domains=royaltees.cf%20www.royaltees.cf>



LoginNeed Help?

## Free SSL Certificate Validation for "royaltees.cf, www.royaltees.cf"

(Add / Edit Domains | Regenerate Account)

Verify that you own the domain through your web server or if your domain is not yet on a web server then verify it through the DNS. This prevents other people from getting an **SSL certificate** for your domain. By continuing you agree to the [Lets Encrypt service agreement](#). You may need to whitelist 66.133.109.36 if your website is behind a firewall. **If you receive a 504 Gateway timeout and cannot connect anymore then open another incognito/private browser or a different browser to connect again.** If you have your own CSR use manual verification and input it after generating domain verification files. If you use IIS on Windows you may have to do [additional steps](#).

**Automatic FTP Verification**  
Enter FTP information to automatically verify the domain

**Manual Verification**  
Upload verification files manually to your domain to verify ownership.

**Manual Verification (DNS)**  
Use this if you cannot verify through a web server or cannot use port 80. You will be adding a TXT record to your DNS server.


### Manually Verify Domain (DNS)

If you do not have a web server on port 80 then follow the following steps to verify domain ownership manually through your domain DNS servers. If your domains do not point to a DNS server then you must point it to one beforehand.

1. Get domain DNS verification TXT records by clicking the button below
2. Edit your domains DNS server to include the verification TXT records
3. Download your **free ssl certificate**

Manually Verify Domain

### Step 5: Import the certificate in AWS by using Certificate Manager.



Services ▾Resource Groups ▾

🔔Dinesh Purswani ▾Mumbai ▾Support ▾

## Certificates

[Request a certificate](#)[Import a certificate](#)

Actions ▾

⏮ < Viewing 1 to 1 of 1 certificates > ⏭

<input type="checkbox"/>	Name ▾	Domain name ▾	Additional names	Status ▾	Type ▾	In use? ▾	Renewal eligibility ▾
<input type="checkbox"/>	Cloud Computing Mini-Project	royaltees.cf	www.royaltees.cf	Issued	Imported	Yes	Ineligible

⏮ < Viewing 1 to 1 of 1 certificates > ⏭

## Step 6: Create a Load Balancer in AWS and deploy the SSL Certificate in it.

The screenshot shows the AWS Management Console interface for configuring a Load Balancer. The left sidebar contains navigation links for various AWS services, with 'Load Balancers' highlighted under the 'LOAD BALANCING' section. The main content area displays the 'Create Load Balancer' wizard. At the top, there are buttons for 'Create Load Balancer' and 'Actions'. Below this is a search bar and a table listing the configured load balancers. The table has columns for Name, DNS name, State, VPC ID, Availability Zones, Type, and Created At. One load balancer is listed: 'CloudComputingMini-Project' with VPC ID 'vpc-5604803e' and Availability Zones 'ap-south-1b, ap-south-1a'. Below the table, a section titled 'The following listeners are currently configured for this load balancer:' contains a table with columns: Load Balancer Protocol, Load Balancer Port, Instance Protocol, Instance Port, Cipher, and SSL Certificate. Two listeners are configured: HTTP on port 80 and HTTPS on port 443. The HTTPS listener has a cipher of 'N/A' and an SSL Certificate of '3f819d7b-c463-4acf-80cd-55253892ccf3 (ACM)'. There are 'Change' links for the cipher and certificate. An 'Edit' button is located at the bottom left of the listener configuration area. The footer of the console shows 'Feedback', 'English (US)', and copyright information.

Name	DNS name	State	VPC ID	Availability Zones	Type	Created At
CloudComputingMini-Project	CloudComputingMini-Project...		vpc-5604803e	ap-south-1b, ap-south-1a	classic	March 31, 201

Load Balancer Protocol	Load Balancer Port	Instance Protocol	Instance Port	Cipher	SSL Certificate
HTTP	80	HTTP	80	N/A	N/A
HTTPS	443	HTTPS	443	<a href="#">Change</a>	3f819d7b-c463-4acf-80cd-55253892ccf3 (ACM) <a href="#">Change</a>

## Step 7: Use Route 53 for routing queries for the domain.

The screenshot shows the AWS Management Console interface for the Route 53 service. The left sidebar contains navigation links for various AWS services, with 'Hosted zones' highlighted. The main content area displays the 'Create Hosted Zone' wizard. At the top, there are buttons for 'Create Hosted Zone', 'Go to Record Sets', and 'Delete Hosted Zone'. Below this is a search bar and a table listing the configured hosted zones. The table has columns for Domain Name, Type, Record Set Count, Comment, and Hosted Zone ID. One hosted zone is listed: 'royalteefcf' with Type 'Public' and Record Set Count '5'. The Hosted Zone ID is 'Z2DXKE9HVPJN2P'. The footer of the console shows 'Feedback', 'English (US)', and copyright information.

Domain Name	Type	Record Set Count	Comment	Hosted Zone ID
royalteefcf	Public	5		Z2DXKE9HVPJN2P

## Step 8: Test the website.

