

Create and deploy Static e-commerce shoes-shop website on cloud using azure cloud provider

**A Project Report
Submitted By**

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ABSTRACT

In this project, we will create and deploy a static e-commerce shoe shop website using Azure as our cloud provider. The website will showcase various shoe products and allow users to browse, view product details, and make purchases. This project will leverage Azure's infrastructure and services to ensure the website's scalability, reliability, and security. Design the static website, including web pages for product listings, individual product pages, a shopping cart, and a checkout process. Design the static website, including web pages for product listings, individual product pages, a shopping cart, and a checkout process.

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INTRODUCTION

Creating and deploying a static e-commerce shoe shop website on the Azure cloud platform is an excellent way to establish an online presence for your shoe business. Azure offers a robust and scalable infrastructure that can provide the reliability and security needed to run your e-commerce site effectively. In this guide, we'll take you through the process of setting up your website on Azure. In today's digital age, establishing an online e-commerce presence is crucial for the success of any retail business. Whether you're a small shoe boutique or a large footwear retailer, creating a website that allows customers to browse and purchase your products can significantly expand your customer base and boost sales. Azure, Microsoft's cloud computing platform, provides a reliable and scalable environment to host your e-commerce site. Our Azure-powered website ensures lightning-fast performance, secure transactions, and an impeccable user experience. Azure's robust infrastructure guarantees 24/7 availability, assuring you can shop for your favorite shoes at any time, from anywhere in the world. Explore our extensive collection of sneakers, heels, boots, and more, and enjoy a user-friendly interface that makes browsing and shopping a breeze. With Azure's cloud resources, we can effortlessly scale to meet peak demand during sales and promotions, ensuring you never miss out on the latest trends.

1.1 BACKGROUND

In the early 2000s, the e-commerce landscape witnessed the emergence of online shoe shops, marking a significant shift in the way people shopped for footwear. These websites aimed to provide customers with a convenient and extensive platform for browsing, selecting, and purchasing shoes from the comfort of their homes. The background of these e-commerce shoe shops is rooted in the digital revolution and the growing consumer preference for online shopping. With the advent of secure online payment methods and advancements in web technology, it became feasible to create user-friendly, visually appealing platforms for showcasing a wide range of shoe brands and styles. These websites offered various advantages, such as a vast product catalog, detailed product descriptions, high-quality images, and customer reviews, empowering shoppers to make informed choices. Additionally, e-commerce platforms streamlined the purchasing process, offering features like wish lists, cart management, and easy returns. These websites offered various advantages, such as a vast product catalog, detailed product descriptions, high-quality images, and customer reviews, empowering shoppers to make informed choices. Additionally, e-commerce platforms streamlined the purchasing process, offering features like wish lists, cart management, and easy returns.

1.2 RESEARCH OBJECTIVES

Creating and deploying a static e-commerce shoe shop website on the Azure cloud platform is an excellent way to establish an online presence for your shoe business. Azure offers a robust and scalable infrastructure that can provide the reliability and security needed to run your e-commerce site effectively.

The followings are the objectives of this project:

- ◆ **Scalability:** Azure allows you to easily scale your website resources up or down to meet varying demands, ensuring a seamless shopping experience for users during peak times.
- ◆ **Reliability:** Azure offers high availability and redundancy, minimizing downtime and ensuring the website is accessible 24/7.
- ◆ **Security:** Azure provides robust security features, including DDoS protection, identity management, and data encryption, to safeguard both user data and transactions.
- ◆ **Global Reach:** Azure's global network of data centers ensures that your website loads quickly for users worldwide, thanks to Azure CDN and various regional data centers.
- ◆ **Cost Management:** Azure's pay-as-you-go model helps you control costs by only paying for the resources you use.
- ◆ **Integration:** Azure offers a wide range of services for database integration, authentication, and payment processing, simplifying the development process.

1.3 PURPOSE:

The purpose of the Azure Shoe Store project is to create and deploy a static e-commerce website dedicated to selling shoes.

This website serves as a platform for customers to browse, select, and purchase a wide range of footwear.

Leveraging Microsoft Azure as the cloud provider, this project aims to provide a reliable, secure, and scalable online shopping experience.

Azure allows the website to seamlessly handle varying levels of traffic. It can effortlessly scale resources up or down, ensuring a smooth user experience during peak shopping seasons or special promotions.

1.3 SCOPE:

- ◆ In this project, we aim to create and deploy a static e-commerce shoe shop website on the Azure cloud platform.
- ◆ This endeavor involves a combination of web development, cloud infrastructure, and e-commerce functionality.

1.4 APPLICABILITY:

This project can be applied to any e-commerce business that wants to establish an online presence, improve user experience, reach a global audience, and leverage cloud capabilities for scalability, reliability, and security.

Whether you are a small startup or a large enterprise, Azure provides a versatile platform for your e-commerce needs.

CHAPTER - 2 SURVEY OF TECHNOLOGIES

2.1 EXISTING SYSTEM

Pros:

1. Dynamic Features: Traditional e-commerce websites can offer advanced features like user accounts, shopping carts, and real-time product updates.
2. Customization: You have more control over the design and functionality of your website.
3. Database Integration: You can manage product data, user information, and orders using a database.

Cons:

1. Costly: Maintaining a dynamic e-commerce website can be expensive due to hosting, database, and development costs.
2. Security Concerns: Dynamic websites are more vulnerable to security threats and require regular updates and maintenance.
3. Scaling Challenges: Handling traffic spikes and scaling infrastructure can be complex and costly.
4. Complexity: Setting up and maintaining a dynamic e-commerce website is more complicated than a static site.

2.2 PROPOSED SYSTEM

Proposed System

Pros:

- Cost-Efficient: Hosting a static website on Azure is cost-effective as you only pay for the storage and bandwidth you use.
- Scalability: Azure can handle traffic spikes and offers easy scalability through CDNs
- Security: Azure provides robust security features and options for securing your website and data.
- Easy Deployment: Setting up and deploying a static website on Azure is relatively straightforward.

2.3 TECHNOLOGY SURVEY

We are using 9th generation Intel core i3 processor, leading the pack is the Intel core i3-9100F processor.

Architected for performance, this processor packs 4 high-performing core with core base frequency of 3.60Hz and 8MB of cache memory.

Ram 8 GB is used as it will provide fast reading and writing capabilities and will in turn support in processing.

The Operating system which is used for our project is Windows 11 because in this operating system is stable and supports more features and is more user friendly.

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- **HTML:**

HTML, which stands for Hypertext Markup Language, is the standard markup language used to create and structure content on the World Wide Web. It is the backbone of web pages and is essential for building and displaying web content. HTML uses a system of tags, which are enclosed in angle brackets (<>), to define the structure and elements of a web page. HTML allows web developers to create text, images, links, forms, and multimedia content and to specify how these elements are displayed in a web browser. The language is designed to be readable by both humans and machines, making it a fundamental component of web development.

- **CSS:**

Cascading Style Sheets (CSS) is a critical component of web development that defines the visual presentation and layout of web pages. It's a stylesheet language used to describe how HTML elements should be displayed on a web browser. CSS separates content (provided by HTML) from its visual styling, promoting better organization and flexibility in web design. CSS rules consist of selectors that target HTML elements, and declarations that specify the element's styling properties. Properties can define aspects like color, font size, spacing, positioning, and more. CSS allows for both basic styling and complex layouts, making it possible to create aesthetically pleasing and responsive websites.

- **JAVASCRIPT:**

Microsoft Excel is a spreadsheet program incorporated in Microsoft Office suite of applications. Spreadsheets prompt tables of values arranged in rows and columns that can be mathematically manipulated using both basic and complex arithmetic functions and operations. Apart from its standard spreadsheet features, Excel also extends programming support via Microsoft's Visual Basic for Applications (VBA), the capacity to access data from external sources via Microsoft's Dynamic Data Exchange (DDE)

and extensive graphing and charting abilities. Excel being electronic spreadsheet program can be used to store, organize and manipulate the data. Electronic spreadsheet programs were formerly based on paper spreadsheets used for accounting purpose. The basic layout of computerized spreadsheets is more or less same as the paper ones. Related data can be stored in tables - which are a group of small rectangular boxes or cells that are standardized into rows and columns.

- **VISUAL STUDIO CODE:**

Visual Studio Code is a free source-code editor made by Microsoft for Windows, Linux and macOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. Users can change the theme, keyboard shortcuts, preferences, and install extensions that add additional functionality. Instead of a project system, it allows users to open one or more directories, which can then be saved in workspaces for future reuse. This allows it to operate as a language-agnostic code editor for any language. It supports a number of programming languages and a set of features that differs per language. Unwanted files and folders can be excluded from the project tree via the settings. Many Visual Studio Code features are not exposed through menus or the user interface, but can be accessed via the command palette.

- **BOOTSTRAP:**

Bootstrap is a popular and open-source front-end framework used for web development, allowing developers to create responsive, mobile-first, and visually appealing websites and web applications with ease. Developed by Twitter and now maintained by a community of developers, Bootstrap simplifies the process of building modern, user-friendly interfaces.

At its core, Bootstrap is a collection of HTML, CSS, and JavaScript components that provide pre-designed, reusable building blocks for creating web content. These components include responsive grid layouts, typography, navigation bars, forms, buttons, modals, and various UI elements. Bootstrap's responsive design ensures that web pages adapt seamlessly to different screen sizes, from desktops to smartphones, enhancing user experience and accessibility.

- **Azure Cloud Provider:**

Azure, often referred to as Microsoft Azure, is a leading cloud computing platform and infrastructure offered by Microsoft. It provides a wide range of cloud services, including computing, analytics, storage, databases, networking, and more. Azure is designed to empower businesses and individuals by enabling them to build, deploy, and manage applications and services through Microsoft's vast global network of data centers.

Azure's key features and capabilities include virtual machines for scalable computing, Azure App Service for web and mobile app development, Azure Functions for serverless computing, and Azure Kubernetes Service for container orchestration. It also offers data and analytics solutions like Azure SQL Database, Azure Cosmos DB, and Azure Data Lake Storage. Moreover, Azure's robust security and compliance features, such as Azure Active Directory and Azure Security Center, ensure data protection and regulatory compliance.

CHAPTER - 3 REQUIREMENTS AND ANALYSIS

In this Part we will discuss about project requirement and analysis in that we are going to explain the Function, Software and hardware requirement, Planning and Scheduling of the project, Preliminary Product Description and Conceptual Models of project.

3.1 PROBLEM STATEMENT

Problem statement

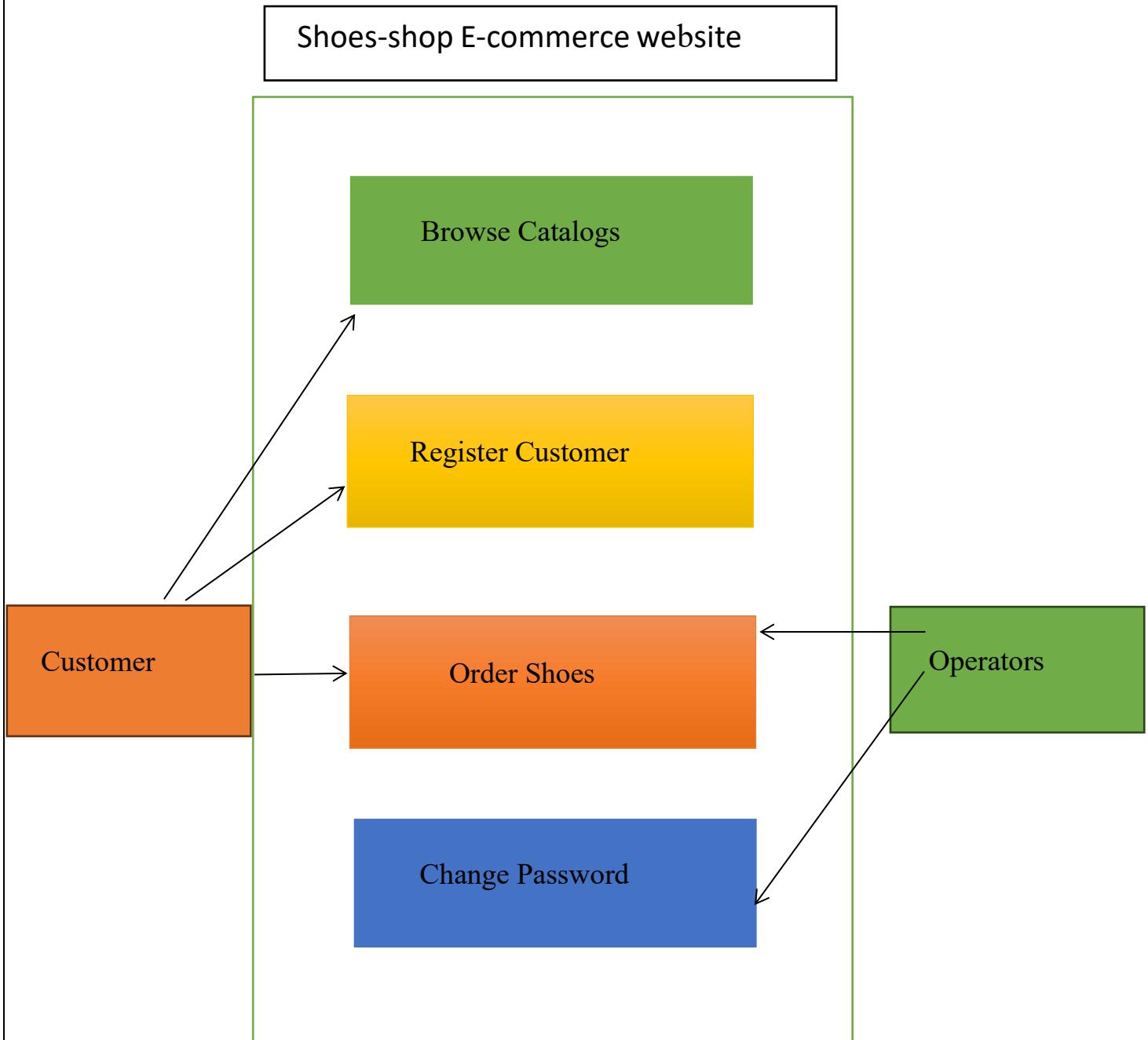
- Creating an e-commerce shoe shop website can offer several benefits, both for business owners and consumers. Here are some of the reasons why you might consider creating an e-commerce shoe shop website:
- **Global Reach:** An e-commerce website allows you to reach customers not just locally but globally. Your potential customer base is no longer limited to your physical store's location.
- **Convenience:** Online shopping is convenient for customers. They can browse and purchase shoes from the comfort of their homes or on the go, 24/7. This convenience can lead to increased sales.
- **Lower Overheads:** Running an e-commerce store typically has lower overhead costs compared to a physical store. You don't need to invest in a physical storefront, pay rent, or hire as many staff.
- **Detailed Product Information:** E-commerce websites allow you to provide detailed product descriptions, specifications, and customer reviews, helping customers make informed purchasing decisions.

3.2 SOFTWARE AND HARDWARE REQUIREMENT

HARDWARE REQUIREMENT

- System: IBM-Compatible PC
- Processor: Intel® Pentium® IV 2.4 GHz or AMD 3500+
- Speed: Above 1GHz
- RAM capacity:2 GB
- Graphics: OpenGL 2.1 or OpenGL ES 2
- Keyboard: Standard
- Mouse: Standard ○ Monitor: SVGA Colour Software Requirements
- Operating System : Windows 11(ultimate, enterprise) ○ Programming Language: Python Programming Language.
- IDE : Visual studio code

3.3 CONCEPTUAL MODELS

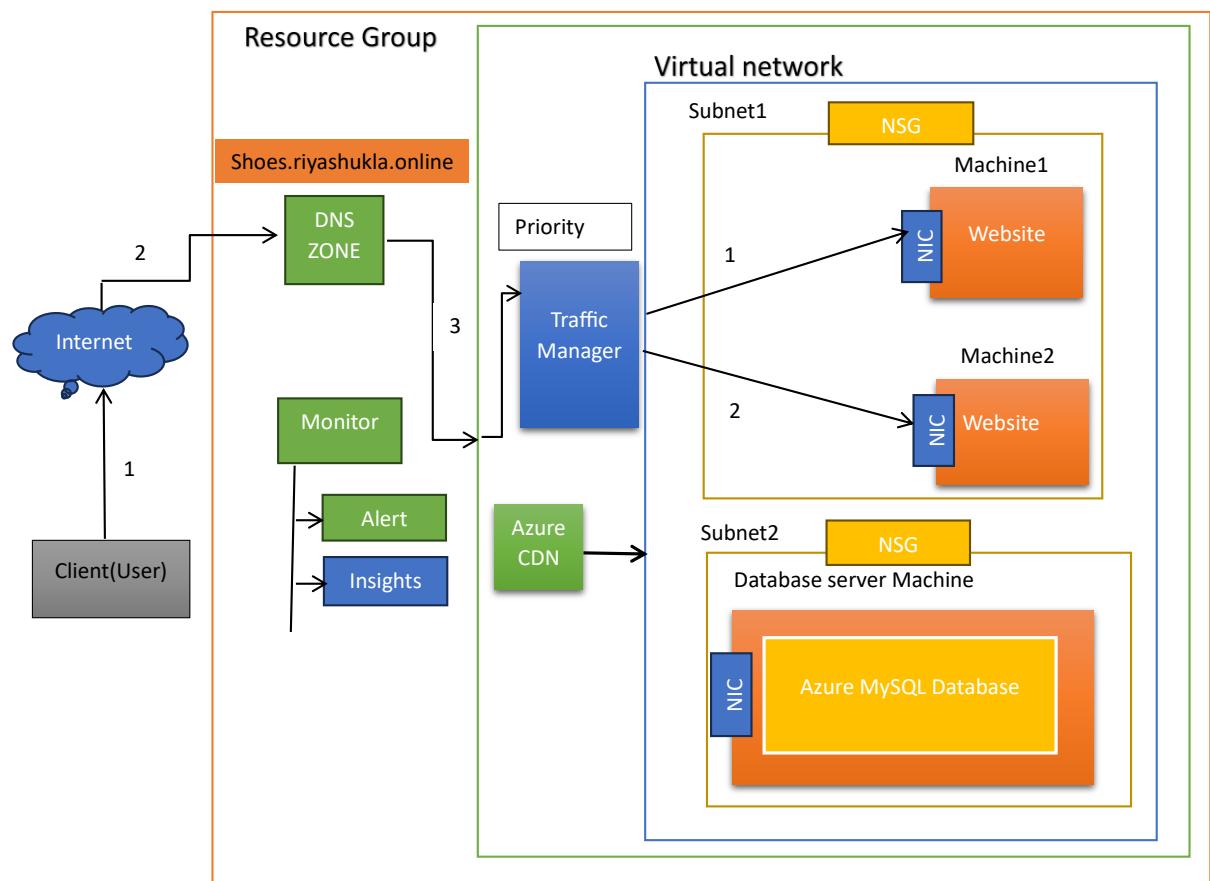


CHAPTER – 4.CREATING SHOES-SHOPE

STATIC WEBSITE

4.1 SYSTEM ARCHITECTURE

Azure-cloud



4.2 Code:

Index.html:

```
<!DOCTYPE html>
<html lang="en">

<head>
    <title>Shoes-Shop website </title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">

    <link rel="apple-touch-icon" href="assets/img/apple-icon.png">
    <link rel="shortcut icon" type="image/x-icon" href="assets/img/favicon.ico">

    <link rel="stylesheet" href="assets/css/bootstrap.min.css">
    <link rel="stylesheet" href="assets/css/templatemo.css">
    <link rel="stylesheet" href="assets/css/custom.css">

    <!-- Load fonts style after rendering the layout styles -->
    <link rel="stylesheet"
        href="https://fonts.googleapis.com/css2?family=Roboto:wght@100;200;300;400;500;700;900&display=swap">
        <link rel="stylesheet" href="assets/css/fontawesome.min.css">
    <!--

TemplateMo 559 Zay Shop

https://templatemo.com/tm-559-zay-shop

-->
</head>

<body>
    <!-- Start Top Nav -->
    <nav class="navbar navbar-expand-lg bg-dark navbar-light d-none d-lg-block" id="templatemo_nav_top">
        <div class="container text-light">
```

```

<div class="w-100 d-flex justify-content-between">
  <div>
    <i class="fa fa-envelope mx-2"></i>
    <a class="navbar-sm-brand text-light text-decoration-none"
       href="mailto:info@company.com">info@company.com</a>
    <i class="fa fa-phone mx-2"></i>
    <a class="navbar-sm-brand text-light text-decoration-none"
       href="tel:010-020-0340">010-020-0340</a>
  </div>
  <div>
    <a class="text-light" href="https://fb.com/templatemo" target="_blank"
       rel="sponsored"><i class="fab fa-facebook-f fa-sm fa-fw me-2"></i></a>
    <a class="text-light" href="https://www.instagram.com/" target="_blank"><i class="fab fa-instagram fa-sm fa-fw me-2"></i></a>
    <a class="text-light" href="https://twitter.com/" target="_blank"><i class="fab fa-twitter fa-sm fa-fw me-2"></i></a>
    <a class="text-light" href="https://www.linkedin.com/" target="_blank"><i class="fab fa-linkedin fa-sm fa-fw"></i></a>
  </div>
  </div>
</div>
<!-- Close Top Nav -->
<!-- Header -->
<nav class="navbar navbar-expand-lg navbar-light shadow">
  <div class="container d-flex justify-content-between align-items-center">

    <a class="navbar-brand text-success logo h1 align-self-center"
       href="index.html">
      Shoes
    </a>

    <button class="navbar-toggler border-0" type="button" data-bs-
      toggle="collapse" data-bs-target="#templatemo_main_nav" aria-
      controls="navbarSupportedContent" aria-expanded="false" aria-label="Toggle
      navigation">
      <span class="navbar-toggler-icon"></span>
    </button>
  </div>
</nav>

```

```
<div class="align-self-center collapse navbar-collapse flex-fill d-lg-flex justify-content-lg-between" id="templatemo_main_nav">
    <div class="flex-fill">
        <ul class="nav navbar-nav d-flex justify-content-between mx-lg-auto">
            <li class="nav-item">
                <a class="nav-link" href="index.html">Home</a>
            </li>
            <li class="nav-item">
                <a class="nav-link" href="about.html">About</a>
            </li>
            <li class="nav-item">
                <a class="nav-link" href="shop.html">Shop</a>
            </li>
            <li class="nav-item">
                <a class="nav-link" href="contact.html">Contact</a>
            </li>
        </ul>
    </div>
    <div class="navbar align-self-center d-flex">
        <div class="d-lg-none flex-sm-fill mt-3 mb-4 col-7 col-sm-auto pr-3">
            <div class="input-group">
                <input type="text" class="form-control" id="inputMobileSearch" placeholder="Search ...">
                <div class="input-group-text">
                    <i class="fa fa-fw fa-search"></i>
                </div>
            </div>
        </div>
        <a class="nav-icon d-none d-lg-inline" href="#" data-bs-toggle="modal" data-bs-target="#templatemo_search">
            <i class="fa fa-fw fa-search text-dark mr-2"></i>
        </a>
        <a class="nav-icon position-relative text-decoration-none" href="#">
            <i class="fa fa-fw fa-cart-arrow-down text-dark mr-1"></i>
            <span class="position-absolute top-0 left-100 translate-middle badge rounded-pill bg-light text-dark">7</span>
        </a>
    </div>
</div>
```

```

        <a class="nav-icon position-relative text-decoration-none" href="#">
<i class="fa fa-fw fa-user text-dark mr-3"></i>
    <span class="position-absolute top-0 left-100 translate-middle badge rounded-pill bg-light text-dark">+99</span>
        </a>
    </div>
</div>

</div>
</nav>
<!-- Close Header -->

<!-- Modal -->
<div class="modal fade bg-white" id="templatemo_search" tabindex="-1" role="dialog" aria-labelledby="exampleModalLabel" aria-hidden="true">
    <div class="modal-dialog modal-lg" role="document">
        <div class="w-100 pt-1 mb-5 text-right">
            <button type="button" class="btn-close" data-bs-dismiss="modal" aria-label="Close"></button>
        </div>
        <form action="" method="get" class="modal-content modal-body border-0 p-0">
            <div class="input-group mb-2">
                <input type="text" class="form-control" id="inputModalSearch" name="q" placeholder="Search ...">
                <button type="submit" class="input-group-text bg-success text-light">
                    <i class="fa fa-fw fa-search text-white"></i>
                </button>
            </div>
        </form>
    </div>
</div>

<!-- Start Banner Hero -->

```

```

<div id="template-mo-zay-hero-carousel" class="carousel slide" data-bs-ride="carousel">
    <ol class="carousel-indicators">
        <li data-bs-target="#template-mo-zay-hero-carousel" data-bs-slide-to="0" class="active"></li>
        <li data-bs-target="#template-mo-zay-hero-carousel" data-bs-slide-to="1"></li>
        <li data-bs-target="#template-mo-zay-hero-carousel" data-bs-slide-to="2"></li>
    </ol>
    <div class="carousel-inner">
        <div class="carousel-item active">
            <div class="container">
                <div class="row p-5">
                    <div class="mx-auto col-md-8 col-lg-6 order-lg-last">
                        
                    </div>
                    <div class="col-lg-6 mb-0 d-flex align-items-center">
                        <div class="text-align-left align-self-center">
                            <h1 class="h1 text-success"><b>Shoes</b> Website</h1>
                            <h3 class="h2">Soft and Perfect shoes-shop</h3>
                            <p>
                                Welcome to our Shoe-Shop-Your Destination for Footwear Excellence! At our Shoe Shop, we're passionate about helping you're a trendsetter, an athlete,
                                simply looking for comfortable and durable shoes, we have a wide selection to meet your every need <a rel="sponsored" class="text-success" href="https://templatemo.com" target="_blank"></a> perfect shoes.
                                <a rel="sponsored" class="text-success" href="https://stories.freepik.com/" target="_blank"></a>,
                                <a rel="sponsored" class="text-success" href="https://unsplash.com/" target="_blank"></a> and
                                <a rel="sponsored" class="text-success" href="https://icons8.com/" target="_blank"></a>.
                            </p>
                        </div>
                    </div>
                </div>
            </div>
        </div>
    </div>
</div>

```

```

        </div>
    </div>
</div>
</div>
<div class="carousel-item">
    <div class="container">
        <div class="row p-5">
            <div class="mx-auto col-md-8 col-lg-6 order-lg-last">
                
            </div>
            <div class="col-lg-6 mb-0 d-flex align-items-center">
                <div class="text-align-left">
                    <h1 class="h1">High-quality</h1>
                    <h3 class="h2">High quality footwear</h3>
                    <p>
                        Our website is your gateway to a world of stylish,high-quality
footwear.
                    </p>
                    World of stylish<strong>extensive catalog</strong> From
sneakers to formal shoes, we've got it all.
                </div>
            </div>
        </div>
    </div>
<div class="carousel-item">
    <div class="container">
        <div class="row p-5">
            <div class="mx-auto col-md-8 col-lg-6 order-lg-last">
                
            </div>
            <div class="col-lg-6 mb-0 d-flex align-items-center">
                <div class="text-align-left">
                    <h1 class="h1">Sizing and Fit Guide</h1>
                    <h3 class="h2">perfect size for all type</h3>
                </div>
            </div>
        </div>
    </div>

```

<p>Our website provides detailed sizing information and fit guides to help you find the perfect size.

Easily search for your preferred style,color,or size with our advanced search and filter features.

```
        </p>
        </div>
        </div>
        </div>
        </div>
        </div>
</div>
<a class="carousel-control-prev text-decoration-none w-auto ps-3"
href="#template-mo-zay-hero-carousel" role="button" data-bs-slide="prev">
    <i class="fas fa-chevron-left"></i>
</a>
<a class="carousel-control-next text-decoration-none w-auto pe-3"
href="#template-mo-zay-hero-carousel" role="button" data-bs-slide="next">
    <i class="fas fa-chevron-right"></i>
</a>
</div>
<!-- End Banner Hero -->
```

<!-- Start Categories of The Month -->

```
<section class="container py-5">
    <div class="row text-center pt-3">
        <div class="col-lg-6 m-auto">
            <h1 class="h1">Secure Payment</h1>
            <p>
                We prioritize the security of your transactions,offering multiple payment options for your convenience.
            </p>
```

We carry a diverse selection of shoes for men,women, and children.

```
        </p>
        </div>
        </div>
<div class="row">
    <div class="col-12 col-md-4 p-5 mt-3">
```

```

    <a href="#"></a>
    <h5 class="text-center mt-3 mb-3">Watches</h5>
    <p class="text-center"><a class="btn btn-success">Go Shop</a></p>
</div>
<div class="col-12 col-md-4 p-5 mt-3">
    <a href="#"></a>
    <h2 class="h5 text-center mt-3 mb-3">Shoes</h2>
    <p class="text-center"><a class="btn btn-success">Go Shop</a></p>
</div>
<div class="col-12 col-md-4 p-5 mt-3">
    <a href="#"></a>
    <h2 class="h5 text-center mt-3 mb-3">Accessories</h2>
    <p class="text-center"><a class="btn btn-success">Go Shop</a></p>
</div>
</div> </div>
</section>
<!-- End Categories of The Month --&gt;
</pre>

```

```

<!-- Start Featured Product --&gt;
&lt;section class="bg-light"&gt;
    &lt;div class="container py-5"&gt;
        &lt;div class="row text-center py-3"&gt;
            &lt;div class="col-lg-6 m-auto"&gt;
                &lt;h1 class="h1"&gt;Featured Product&lt;/h1&gt;
                &lt;p&gt;
                    We partner with reputable brands Known for their quality and
style.ensuring you get the best footwear options.
</pre>

```

Our website is designed to be accessible to all users,ensuring an inclusive shopping exerience.

```

                </p>
            </div>
        </div>
        <div class="row">
```

```

<div class="col-12 col-md-4 mb-4">
  <div class="card h-100">
    <a href="shop-single.html">
      
    </a>
    <div class="card-body">
      <ul class="list-unstyled d-flex justify-content-between">
        <li>
          <i class="text-warning fa fa-star"></i>
          <i class="text-warning fa fa-star"></i>
          <i class="text-warning fa fa-star"></i>
          <i class="text-muted fa fa-star"></i>
          <i class="text-muted fa fa-star"></i>
        </li>
        <li class="text-muted text-right">$240.00</li>
      </ul>
      <a href="shop-single.html" class="h2 text-decoration-none text-dark">Gym Weight</a>
      <p class="card-text">
        We prioritize the security of your transactions, offering multiple payment options for your convenience. We carry a diverse selection of shoes for men, women, and children.
      </p>
      <p class="text-muted">Reviews (24)</p>
    </div>
  </div>
</div>

<div class="col-12 col-md-4 mb-4">
  <div class="card h-100">
    <a href="shop-single.html">
      
    </a>
    <div class="card-body">
      <ul class="list-unstyled d-flex justify-content-between">
        <li>

```

```

<i class="text-warning fa fa-star"></i>
<i class="text-warning fa fa-star"></i>
<i class="text-warning fa fa-star"></i>
<i class="text-muted fa fa-star"></i>
<i class="text-muted fa fa-star"></i>
</li>
<li class="text-muted text-right">$480.00</li>
</ul>
<a href="shop-single.html" class="h2 text-decoration-none text-dark">Cloud Nike Shoes</a>
<p class="card-text">
    We prioritize the security of your transactions, offering multiple payment options for your convenience. We carry a diverse selection of shoes for men, women, and children.
</p>
<p class="text-muted">Reviews (48)</p>
</div>
</div>
</div>
<div class="col-12 col-md-4 mb-4">
    <div class="card h-100">
        <a href="shop-single.html">
            
        </a>
        <div class="card-body">
            <ul class="list-unstyled d-flex justify-content-between">
                <li>
                    <i class="text-warning fa fa-star"></i>
                    <i class="text-warning fa fa-star"></i>
                    <i class="text-warning fa fa-star"></i>
                    <i class="text-warning fa fa-star"></i>
                    <i class="text-warning fa fa-star"></i>
                </li>
                <li class="text-muted text-right">$360.00</li>
            </ul>
        </div>
    </div>
</div>

```

```

        <a href="shop-single.html" class="h2 text-decoration-none text-dark">Summer Addides Shoes</a>
            <p class="card-text">
                We prioritize the security of your transactions, offering multiple payment options for your convenience. We carry a diverse selection of shoes for men, women, and children.
            </p>
            <p class="text-muted">Reviews (74)</p>
        </div>
    </div>
    </div>
    </div>
    </div>
    </div>
</section>
<!-- End Featured Product --&gt;

<!-- Start Footer --&gt;
&lt;footer class="bg-dark" id="tempaltemo_footer"&gt;
    &lt;div class="container"&gt;
        &lt;div class="row"&gt;
            &lt;div class="col-md-4 pt-5"&gt;
                &lt;h2 class="h2 text-success border-bottom pb-3 border-light logo"&gt;Shoes shop&lt;/h2&gt;
                &lt;ul class="list-unstyled text-light footer-link-list"&gt;
                    &lt;li&gt;
                        &lt;i class="fas fa-map-marker-alt fa-fw"&gt;&lt;/i&gt;
                        123 Consectetur at ligula 10660
                    &lt;/li&gt;
                    &lt;li&gt;
                        &lt;i class="fa fa-phone fa-fw"&gt;&lt;/i&gt;
                        &lt;a class="text-decoration-none" href="tel:010-020-0340"&gt;010-020-0340&lt;/a&gt;
                    &lt;/li&gt;
                    &lt;li&gt;
                        &lt;i class="fa fa-envelope fa-fw"&gt;&lt;/i&gt;
                    &lt;/li&gt;
                &lt;/ul&gt;
            &lt;/div&gt;
        &lt;/div&gt;
    &lt;/div&gt;
&lt;/footer&gt;
</pre>

```

```

        <a class="text-decoration-none"
        href="mailto:info@company.com">info@company.com</a>
    </li>
</ul>
</div>

<div class="col-md-4 pt-5">
    <h2 class="h2 text-light border-bottom pb-3 border-
light">Products</h2>
    <ul class="list-unstyled text-light footer-link-list">
        <li><a class="text-decoration-none" href="#">Luxury</a></li>
        <li><a class="text-decoration-none" href="#">Sport Wear</a></li>
        <li><a class="text-decoration-none" href="#">Men's Shoes</a></li>
        <li><a class="text-decoration-none" href="#">Women's
        Shoes</a></li>
        <li><a class="text-decoration-none" href="#">Popular Dress</a></li>
        <li><a class="text-decoration-none" href="#">Gym
        Accessories</a></li>
        <li><a class="text-decoration-none" href="#">Sport Shoes</a></li>
    </ul>
</div>

<div class="col-md-4 pt-5">
    <h2 class="h2 text-light border-bottom pb-3 border-light">Further
Info</h2>
    <ul class="list-unstyled text-light footer-link-list">
        <li><a class="text-decoration-none" href="#">Home</a></li>
        <li><a class="text-decoration-none" href="#">About Us</a></li>
        <li><a class="text-decoration-none" href="#">Shop Locations</a></li>
<li><a class="text-decoration-none" href="#">FAQs</a></li>
        <li><a class="text-decoration-none" href="#">Contact</a></li>
    </ul>
</div>

</div>

<div class="row text-light mb-4">

```

```

<div class="col-12 mb-3">
    <div class="w-100 my-3 border-top border-light"></div>
</div>
<div class="col-auto me-auto">
    <ul class="list-inline text-left footer-icons">
        <li class="list-inline-item border border-light rounded-circle text-center">
            <a class="text-light text-decoration-none" target="_blank"
href="http://facebook.com/"><i class="fab fa-facebook-f fa-lg fa-fw"></i></a>
        </li>
        <li class="list-inline-item border border-light rounded-circle text-center">
            <a class="text-light text-decoration-none" target="_blank"
href="https://www.instagram.com/"><i class="fab fa-instagram fa-lg fa-fw"></i></a>
        </li>
        <li class="list-inline-item border border-light rounded-circle text-center">
            <a class="text-light text-decoration-none" target="_blank"
href="https://twitter.com/"><i class="fab fa-twitter fa-lg fa-fw"></i></a>
        </li>
        <li class="list-inline-item border border-light rounded-circle text-center">
            <a class="text-light text-decoration-none" target="_blank"
href="https://www.linkedin.com/"><i class="fab fa-linkedin fa-lg fa-fw"></i></a>
        </li>
    </ul>
</div>
<div class="col-auto">
    <label class="sr-only" for="subscribeEmail">Email address</label>
    <div class="input-group mb-2">
        <input type="text" class="form-control bg-dark border-light"
id="subscribeEmail" placeholder="Email address">
        <div class="input-group-text btn-success text-light">Subscribe</div>
    </div>
</div>
</div>

```

```
</div></div>

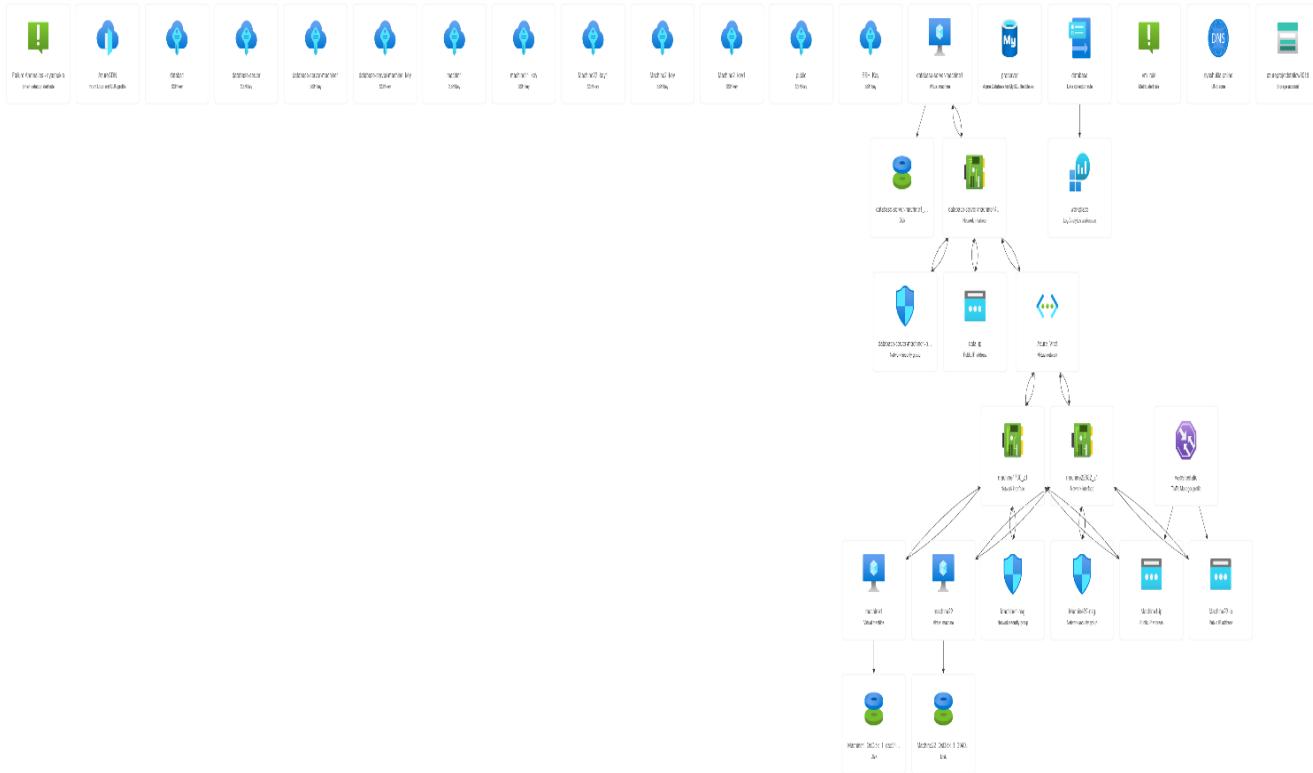
<div class="w-100 bg-black py-3">
  <div class="container">
    <div class="row pt-2">
      <div class="col-12">
        <p class="text-left text-light">
          Copyright © 2021 Company Name
          | Designed by <a rel="sponsored" href="https://templatemo.com"
target=_blank>TemplateMo</a>
        </p>
      </div>
    </div>
  </div>
</div>

</footer>
<!-- End Footer -->

<!-- Start Script -->
<script src="assets/js/jquery-1.11.0.min.js"></script>
<script src="assets/js/jquery-migrate-1.2.1.min.js"></script>
<script src="assets/js/bootstrap.bundle.min.js"></script>
<script src="assets/js/templatemo.js"></script>
<script src="assets/js/custom.js"></script>
<!-- End Script -->
</body>

</html>
```

Chapter 5: Deploy shoes-shop website on azure cloud



5.1 Create Virtual Network

Subscription: Azure for Students
Resource group: (New) Project_Staticwebsite
Virtual network name: Vnet_azure
Region: (Asia Pacific) Central India

IP address space: 172.30.0.0/16
Subnet details:
Name: default
Starting address: 172.30.0.0
Subnet size: /24 (256 addresses)
NAT gateway: None

3274) Azure Project (रायव शुक्ला) Create virtual network - Microsoft Azure

https://portal.azure.com/#create/Microsoft.VirtualNetwork-ARM

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Microsoft Azure Search resources, services, and docs (G+) riyavijayshukla@gmail.com DEFAULT DIRECTORY

Home > Virtual networks > Create virtual network

Basics Security IP addresses Tags Review + create

View automation template

Basics

Subscription	Azure for Students
Resource Group	Azure_Project_Static_Website
Name	Azure_Vnet
Region	Central India

Security

Azure Bastion	Disabled
Azure Firewall	Disabled
Azure DDoS Network Protection	Disabled

IP addresses

Address space	10.0.0.0/16 (65536 addresses)
---------------	-------------------------------

Previous Next Create Give feedback

35°C Haze Search ENG IN 12:58 14-10-2023

3274) Azure Project (रायव शुक्ला) Azure_Vnet - Microsoft Azure

https://portal.azure.com/@riyavijayshuklagmail.onmicrosoft.com/resource/subscriptions/86693717-3499-4a11-89a4-9d54d24a4cda/resourcegroups/Azure_Project_Static_Website/provi...

Gmail YouTube Maps delta course

Microsoft Azure Search resources, services, and docs (G+) riyavijayshukla@gmail.com DEFAULT DIRECTORY

Home > Azure_Vnet | Overview >

Azure_Vnet Virtual network

Search Move Delete Refresh Give feedback

Overview

Activity log Access control (IAM) Tags Diagnose and solve problems

Settings

Address space Connected devices Subnets Bastion DDoS protection Firewall Microsoft Defender for Cloud Network manager DNS servers Peering

Essentials

Resource group (move) : Azure_Project_Static_Website	Address space : 10.0.0.0/16
Location (move) : Central India	DNS servers : Azure provided DNS service
Subscription (move) : Azure for Students	Flow timeout : Configure
Subscription ID : 86693717-3499-4a11-89a4-9d54d24a4cda	BGP community string : Configure
	Virtual network ID : 8eddfb4c-468c-4dfd-9b58-ab85be0d8a05

Tags (edit) : Add tags JSON View

Topology Properties Capabilities (5) Recommendations Tutorials

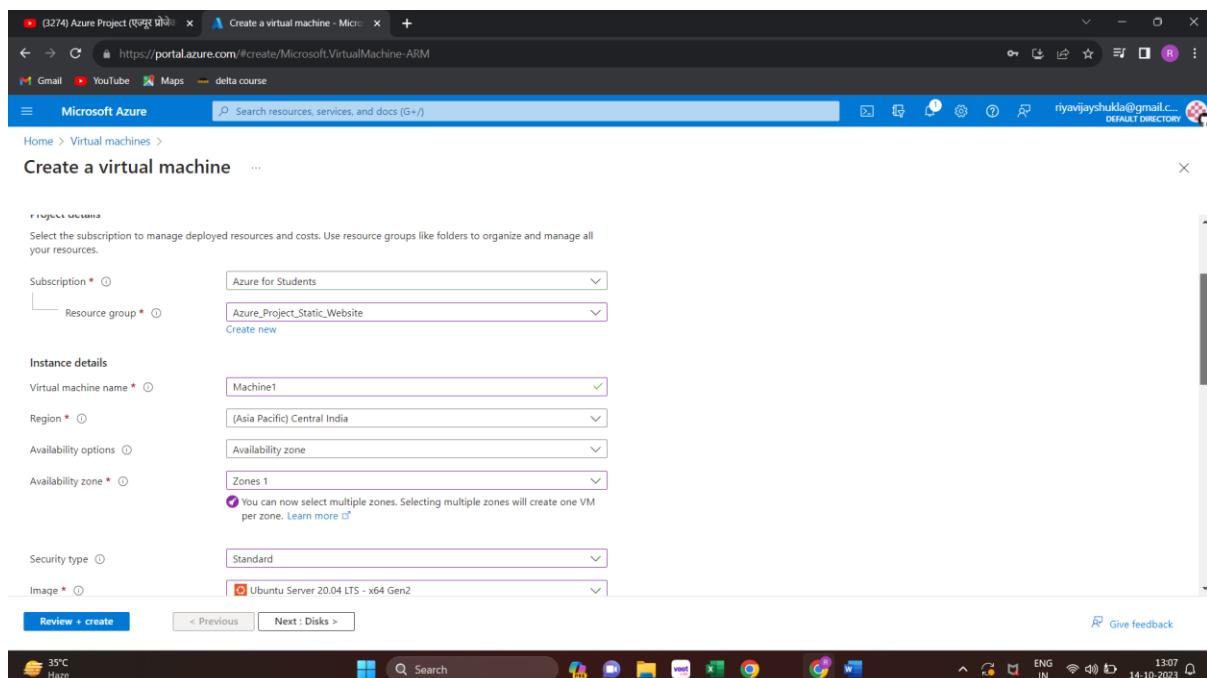
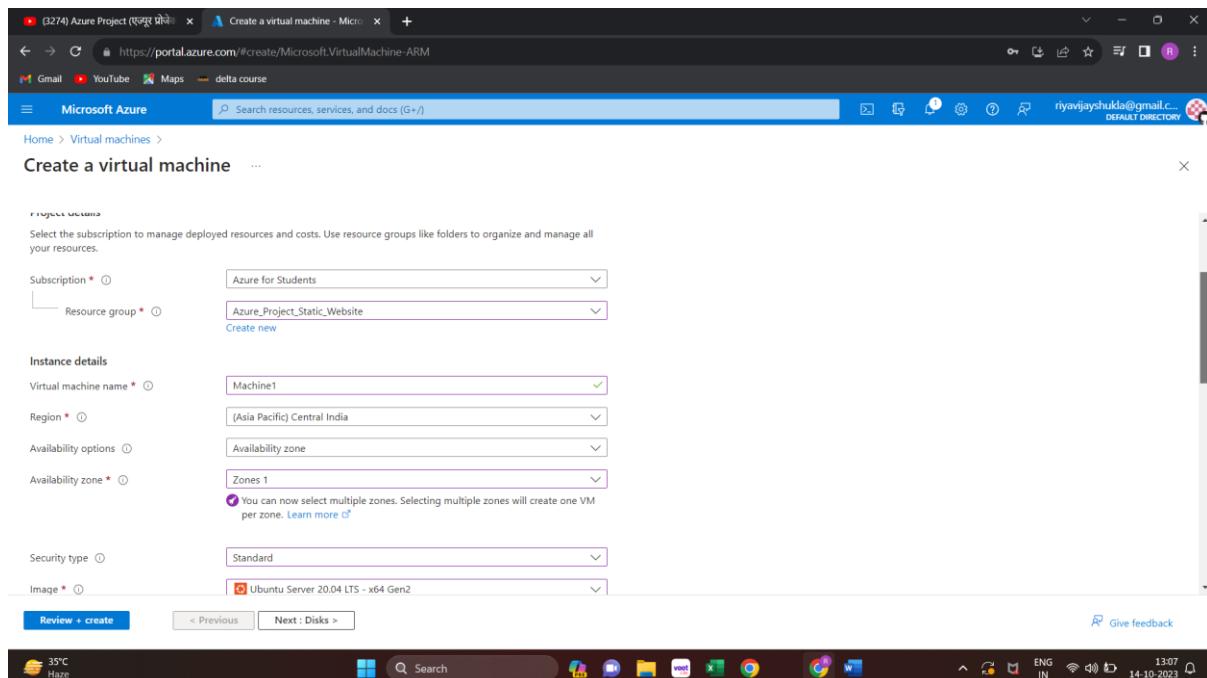
DDoS protection Azure Firewall Peers Microsoft Defender for Cloud

Configure additional protection from distributed denial of service attacks. Not configured Protect your network with a stateful L3-L7 firewall. Not configured Seamlessly connect two or more virtual networks. Not configured Privately access Azure services

35°C Haze Search ENG IN 12:59 14-10-2023

5.2 Create Virtual machine

Create Machine 1 in subnet1:



Validation passed

Basics

Subscription: Azure for Students
Resource group: Azure_Project_Static_Website
Virtual machine name: Machine1
Region: Central India
Availability options: Standard
Availability zone: 1
Security type: Ubuntu Server 20.04 LTS - Gen2
VM architecture: x64
Size: Standard D2s v3 (2 vcpus, 8 GiB memory)
Authentication type: SSH public key
Username: azureuser
Key pair name: SSH_Key
Public inbound ports: SSH, HTTP
Azure Spot: No

Disk

Create < Previous Next > Download a template for automation

Give feedback

35°C Haze 13:15 14-10-2023

Networking

Define network connectivity for your virtual machine by configuring network interface card (NIC) settings. You can control ports, inbound and outbound connectivity with security group rules, or place behind an existing load balancing solution.
[Learn more](#)

Network interface

When creating a virtual machine, a network interface will be created for you.

Virtual network *: Azure_Vnet
Subnet *: subnet_1 (10.0.0.0/24)
Public IP: Machine1-ip
NIC network security group: Basic
Public inbound ports *: None

Review + create < Previous / Next : Management >

Give feedback

35°C Haze 13:12 14-10-2023

Machine1 - Microsoft Azure

https://portal.azure.com/#@riyavijayshuklagmail.onmicrosoft.com/resource/subscriptions/86693717-3499-4a11-89a4-9d54d24a4cda/resourceGroups/azure_project_static_website/providers/...

Gmail YouTube Maps delta course

Microsoft Azure Search resources, services, and docs (G+)

Machine1 Virtual machine

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Connect Network settings Load balancing Application security groups Network manager Settings Disks

Connect Start Restart Stop Capture Delete Refresh Open in mobile Feedback CLI / PS

Home > Virtual machines >

Machine1

Resource group (move) : azure_project_static_website

Status : Stopped (deallocated)

Location : Central India (Zone 1)

Subscription (move) : Azure for Students

Subscription ID : 86693717-3499-4a11-89a4-9d54d24a4cda

Availability zone : 1

Tags (edit) : Add tags

Operating system : Linux

Size : Standard D2s v3 (2 vcpus, 8 GiB memory)

Public IP address : 20.235.248.247

Virtual network/subnet : Azure_Vnet subnet_1

DNS name : dns1.centralindia.cloudapp.azure.com

Health state : -

Properties Monitoring Capabilities (7) Recommendations Tutorials

Virtual machine

Computer name	Machine1
Operating system	Linux
Image publisher	canonical
Image offer	0001-com-ubuntu-server-focal
Image plan	20_04-lts-gen2
VM generation	V2
Processor architecture	x64

Networking

Public IP address	20.235.248.247 (Network interface machine1730_z1)
Public IP address (IPv6)	-
Private IP address	10.0.0.4
Private IP address (IPv6)	-
Virtual network/subnet	Azure_Vnet subnet_1
DNS name	dns1.centralindia.cloudapp.azure.com

https://portal.azure.com/#@riyavijayshuklagmail.onmicrosoft.com/resource/subscriptions/86...

35°C Smoke

Search

ENG IN 1543 24-10-2023

Create machine2 in subnet1

The screenshot shows the Microsoft Azure portal interface. The main title bar says "Machine22 - Microsoft Azure". The URL in the address bar is [https://portal.azure.com/#@riyavijayshuklagmail.onmicrosoft.com/resource/subscriptions/86693717-3499-4a11-89a4-9d54d24a4cda/resourceGroups/azure_project_static_website/providers/...](https://portal.azure.com/#@riyavijayshuklagmail.onmicrosoft.com/resource/subscriptions/86693717-3499-4a11-89a4-9d54d24a4cda/resourceGroups/azure_project_static_website/providers/). The top navigation bar includes links for "Gmail", "YouTube", "Maps", and "delta course". The main content area is titled "Machine22" and shows the "Virtual machine" blade. The "Overview" section displays basic information: Resource group (move) : [azure_project_static_website](#), Status : Stopped (deallocated), Location : Central India (Zone 1), Subscription (move) : [Azure for Students](#), Subscription ID : 86693717-3499-4a11-89a4-9d54d24a4cda, Availability zone : 1, Tags (edit) : [Add tags](#). The "Networking" section shows a Public IP address of 20.235.248.131 and a Virtual network/subnet of [Azure_Vnet/subnet_2](#). The "Properties" tab is selected, showing detailed configuration: Computer name : Machine22, Operating system : Linux, Image publisher : canonical, Image offer : 0001-com-ubuntu-server-focal, Image plan : 20_04-lts-gen2, VM generation : V2, VM architecture : x64. The "Networking" section also lists a Public IP address of 20.235.248.131 (Network interface [machine22682_z1](#)), Private IP address of 10.0.1.8, and a DNS name of [dns3.centralindia.cloudapp.azure.com](#). The bottom status bar shows the date and time as 24-10-2023 15:41.

Create virtual machine for database in subnet2

The screenshot shows the Microsoft Azure portal interface. The main title bar says "database-server-machine1 - Microsoft Azure". The URL in the address bar is [https://portal.azure.com/#@riyavijayshuklagmail.onmicrosoft.com/resource/subscriptions/86693717-3499-4a11-89a4-9d54d24a4cda/resourceGroups/azure_project_static_website/providers/...](https://portal.azure.com/#@riyavijayshuklagmail.onmicrosoft.com/resource/subscriptions/86693717-3499-4a11-89a4-9d54d24a4cda/resourceGroups/azure_project_static_website/providers/). The top navigation bar includes links for "Gmail", "YouTube", "Maps", and "delta course". The main content area is titled "database-server-machine1" and shows the "Virtual machine" blade. The "Overview" section displays basic information: Resource group (move) : [azure_project_static_website](#), Status : Stopped (deallocated), Location : Central India (Zone 1), Subscription (move) : [Azure for Students](#), Subscription ID : 86693717-3499-4a11-89a4-9d54d24a4cda, Availability zone : 1, Tags (edit) : [Add tags](#). The "Networking" section shows a Public IP address of 20.244.35.102 and a Virtual network/subnet of [Azure_Vnet/subnet_1](#). The "Properties" tab is selected, showing detailed configuration: Computer name : database-server-machine1, Operating system : Linux, Image publisher : canonical. The bottom status bar shows the date and time as 24-10-2023 15:42.

Create Azure MySQL database:

Storage selected 20 GiB (INR 10.29 per GiB) 20 x 10.29

Auto scale IOPS

Backup Retention

Bandwidth

Estimated total INR 1610.35/month

Review + create Next : Networking >

Compute Sku INR 1404.59/month

Free upto 750 hours Standard_B1ms (1 vCore) 1404.59

Storage INR 205.76/month

Free upto 32 GB Storage selected 20 GiB (INR 10.29 per GiB) 20 x 10.29

Auto scale IOPS

Backup Retention

Public access

Allow public access to this resource through the internet using a public IP address

Firewall rules

Review + create < Previous Next : Security >

Subscription: Azure for Students

Resource group: Azure_Project_Static_Website

Server name: praserver

Server admin login name: azureuser

Location: Central India

Availability zone: 1

High availability: Not Enabled

MySQL version: 8.0

Compute + storage: Burstable; B1ms, 1 vCore, 2 GB RAM, 20 storage, Auto scale IOPS

Backup retention period (in days): 7 day(s)

Storage Auto-growth: Enabled

Geo-redundancy: Not Enabled

Networking (Change):

- Connectivity method:** Public access (allowed IP addresses) and Private endpoint
- Allow public access to this resource through the internet using a public IP address:** Yes
- Allow public access from any Azure service within Azure to this server:** No

Compute Sku: INR 1404.59/month (Standard_B1ms (1 vCore))

Storage: INR 205.76/month (Free upto 32 GB, Storage selected 20 GB (INR 10.29 per GB)))

Auto scale IOPS: Auto scale IOPS is billed on usage in per million request increments.

Backup Retention: Backup retention is billed based on additional storage used for retaining backups.

Bandwidth:

Install MySql database in Machine3(Database Server Machine)

```

root@database-server-machine:/home/azureuser
mysql> show database;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'database' at line 1
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0.01 sec)

mysql> create database india;
Query OK, 1 row affected (0.01 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| india |
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
5 rows in set (0.00 sec)

mysql>

```

Create Azure CDN:

The screenshot shows the Microsoft Azure portal with the URL <https://portal.azure.com/#create/Microsoft.AFDX>. The page title is "Create a Front Door profile". The "Profile details" section is visible, showing a "Name" field set to "AzureCDN", a "Tier" field set to "Standard (Content delivery optimized)", and an "Endpoint name" field set to "AzureStaticEndpoint". The "Review + create" button is at the bottom left, and the "Automation options" link is at the bottom right.

The screenshot shows the Microsoft Azure portal with the URL <https://portal.azure.com/#create/Microsoft.AFDX>. The page title is "Create a Front Door profile". The "Profile details" section is visible, showing a "Name" field set to "AzureCDN", a "Tier" field set to "Standard (Content delivery optimized)", and an "Endpoint name" field set to "AzureStaticEndpoint". The "Endpoint settings" section includes fields for "Endpoint hostname" (set to "AzureStaticEndpoint-a8ace2bgc0hnc9a9.z01.azurefd.net"), "Origin type" (set to "Public IP Address"), and "Origin host name" (set to "Machine1-ip"). The "Review + create" button is at the bottom left, and the "Automation options" link is at the bottom right.

The screenshot shows a Microsoft Azure portal window titled "Create a Front Door profile". The "Review + create" tab is selected. A green validation message says "Validation passed." Below the tabs, there are two sections: "Basics" and "Endpoint".

Basics

Subscription	Azure for Students
Resource group	Azure_Project_Static_Website
Location	Central India
Name	AzureCDN
Tier	Azure Front Door Standard

Endpoint

Endpoint hostname	AzureStaticEndpoint-a8ace2bgc0hnc9a9.z01.azurefd.net
Origin	20.235.248.247
Caching	Disabled
WAF policy	None

At the bottom, there are buttons for "Create", "< Previous", "Next >", and "Automation options". The status bar at the bottom right shows the date and time as "15-10-2023 01:00".

5.3 Deploy code on virtual machine using Github

Deploy same code on machine1 and Machine2

```
azureuser@Machine1:~  
C:\Users\RIYAA>ssh -i "C:\Users\RIYAA\Downloads\SSH_Key.pem" azureuser@20.235.248.247  
(c) Microsoft Corporation. All rights reserved.  
The authenticity of host '20.235.248.247 (20.235.248.247)' can't be established.  
ED25519 key fingerprint is SHA256:5LYXTmhzzCA503BQ9MBVi0Fc9E9f918BYgFOGU1Obu.  
This key is not known by any other names  
Are you sure you want to continue connecting (yes/no/[Fingerprint])? y  
Please type 'yes', 'no' or the fingerprint: yes  
Warning: Permanently added '20.235.248.247' (ED25519) to the list of known hosts.  
Welcome to Ubuntu 20.04.6 LTS (GNU/Linux 5.15.0-1045-azure x86_64)  
System information as of Sun Oct 15 17:52:18 UTC 2023  
System load: 0.0 Processes: 123  
Usage of /: 5.2% of 28.89GB Users logged in: 0  
Memory usage: 3% IPv4 address for eth0: 10.0.0.4  
Swap usage: 0%  
Expanded Security Maintenance for Applications is not enabled.  
0 updates can be applied immediately.  
Enable ESM Apps to receive additional future security updates.  
See https://ubuntu.com/esm or run: sudo pro status  
The list of available updates is more than a week old.  
To check for new updates run: sudo apt update  
The programs included with the Ubuntu system are free software;  
the exact distribution terms for each program are described in the  
individual files in /usr/share/doc/*copyright*.  
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by  
applicable law.  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
azureuser@Machine1:~$
```

```
root@Machine1:/home/azureuser  
Unpacking apache2 (2.4.41-4ubuntu3.14) ...  
Selecting previously unselected package ssl-cert.  
Preparing to unpack .../10-ssl-cert_1.0.39_all.deb ...  
Unpacking ssl-cert (1.0.39) ...  
Setting up libapr1:amd64 (1.6.5-1ubuntu1) ...  
Setting up libjansson4:amd64 (2.12-1ubuntu1) ...  
Setting up ssl-cert (1.0.39) ...  
Setting up liblouis0:amd64 (5.4.4-1ubuntu13) ...  
Setting up libpq5:amd64 (12.4-0ubuntu1.10) ...  
Setting up libaprutil1:amd64 (1.6.1-4ubuntu2.2) ...  
Setting up libaprutil1-ldap:amd64 (1.6.1-4ubuntu2.2) ...  
Setting up libaprutil1-dbd-sqlite3:amd64 (1.6.1-4ubuntu2.2) ...  
Setting up apache2-utils (2.4.41-4ubuntu1.14) ...  
Setting up apache2-bin (2.4.41-4ubuntu3.14) ...  
Setting up apache2 (2.4.41-4ubuntu3.14) ...  
Enabling module mpm_event.  
Enabling module authz_core.  
Enabling module authn_host.  
Enabling module authn_file.  
Enabling module authn_basic.  
Enabling module access_compat.  
Enabling module authn_file.  
Enabling module authz_user.  
Enabling module alias.  
Enabling module dir.  
Enabling module autoindex.  
Enabling module env.  
Enabling module headers.  
Enabling module negotiation.  
Enabling module setenvif.  
Enabling module filter.  
Enabling module deflate.  
Enabling module status.  
Enabling module reqtimeout.  
Enabling conf charset.  
Enabling conf localized-error-pages.  
Enabling conf other-hosts-access-log.  
Enabling conf multiViews.  
Enabling conf serve-cgi-bin.  
Enabling site 000-default.  
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /lib/systemd/system/apache2.service.  
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcaceclean.service → /lib/systemd/system/apache-htcaceclean.service.  
Processing triggers for ufw (0.36-6ubuntu1.1) ...  
Processing triggers for systemd (245.4-4ubuntu3.22) ...  
Processing triggers for man-db (2.9.1-1) ...  
Processing triggers for libc-bin (2.31-0ubuntu9.12) ...  
root@Machine1:/home/azureuser#
```

```
root@Machine1:/home/azureuser
Setting up apache2 (2.4.41-4ubuntu3.14) ...
Enabling module mpm_event.
Enabling module authz_core.
Enabling module authn_host.
Enabling module authn_socache.
Enabling module auth_basic.
Enabling module access_compat.
Enabling module authn_file.
Enabling module authz_user.
Enabling module alias.
Enabling module dir.
Enabling module autoindex.
Enabling module env.
Enabling module headers.
Enabling module negotiation.
Enabling module setenvif.
Enabling module filter.
Enabling module deflate.
Enabling module status.
Enabling module reqtimeout.
Enabling conf charset.
Enabling conf localized-error-pages.
Enabling conf other-hosts-access-log.
Enabling conf log-format.
Enabling conf serve-cgi-bin.
Enabling site 000-default.
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /lib/systemd/system/apache2.service.
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /lib/systemd/system/apache-htcacheclean.service.
Processing triggers for fwupd (0.36-6ubuntu1.1) ...
Processing triggers for systemd (245.4-4ubuntu3.22) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.12) ...
root@Machine1:/home/azureuser# service apache2 start
root@Machine1:/home/azureuser# service apache2 status
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
     Active: active (running) since Sun 2023-10-15 17:57:45 UTC; 1min 43s ago
       Docs: https://httpd.apache.org/docs/2.4/
 Main PID: 23530 (apache2)
    Tasks: 55 (limit: 9516)
   Memory: 11.0M
      Group: /system.slice/apache2.service
          └─23530 /usr/sbin/apache2 -k start
             ├─23532 /usr/sbin/apache2 -k start
             ├─23533 /usr/sbin/apache2 -k start
             └─23534 /usr/sbin/apache2 -k start

Oct 15 17:57:45 Machine1 systemd[1]: Starting The Apache HTTP Server...
Oct 15 17:57:45 Machine1 systemd[1]: Started The Apache HTTP Server.
root@Machine1:/home/azureuser#
```



```
root@Machine1:/home/azureuser
Note, selecting 'git' for glob 'git*'
Note, selecting 'git-build-recipes' for glob 'git*'
Note, selecting 'gitlab-runner' for glob 'git*'
Note, selecting 'gitlab-workhorse' for glob 'git*'
Note, selecting 'gitweb' for glob 'git*'
Note, selecting 'git-mediawiki' for glob 'git*'
Note, selecting 'gitinspector' for glob 'git*'
Note, selecting 'git-quick-stats' for glob 'git*'
Note, selecting 'gitlab-ci-multi-runner' for glob 'git*'
Note, selecting 'git-repair' for glob 'git*'
Note, selecting 'git-credential' for glob 'git*'
Note, selecting 'git-mail' for glob 'git*'
Note, selecting 'git-secret' for glob 'git*'
Note, selecting 'git-buildpackage-rpm' for glob 'git*'
Note, selecting 'git-annex' for glob 'git*'
Note, selecting 'git-crypt' for glob 'git*'
Note, selecting 'git-debase' for glob 'git*'
Note, selecting 'gitless' for glob 'git*'
Note, selecting 'gitolites' for glob 'git*'
Note, selecting 'gitlabradar' for glob 'git*'
Note, selecting 'git-manual' for glob 'git*'
Note, selecting 'git-all' for glob 'git*'
Note, selecting 'git-cola' for glob 'git*'
Note, selecting 'gitlint' for glob 'git*'
Note, selecting 'git-core' for glob 'git*'
Note, selecting 'git-secrets' for glob 'git*'
Note, selecting 'git-cvs' for glob 'git*'
Note, selecting 'git-dox' for glob 'git*'
Note, selecting 'git-dpe' for glob 'git*'
Note, selecting 'git-flow' for glob 'git*'
Note, selecting 'git-hg' for glob 'git*'
Note, selecting 'git-el' for glob 'git*'
Note, selecting 'git' instead of 'git-core'
Note, selecting 'git' instead of 'git-completion'
Note, selecting 'gitlab-runner' instead of 'gitlab-ci-multi-runner'
git is already the newest version (1:2.25.1-1ubuntu3.11).
git-man is already the newest version (1:2.25.1-1ubuntu3.11).
git-man set to manually installed.
Some packages could not be installed. This may mean that you have
requested an impossible situation or if you are using the unstable
distribution that some required packages have not yet been created
or have moved out of Incoming.
The following information may help to resolve the situation:

The following packages have unmet dependencies:
git-daemon-run : Conflicts: git-daemon-sysvinit but 1:2.25.1-1ubuntu3.11 is to be installed
git-daemon-sysvinit : Conflicts: git-daemon-run but 1:2.25.1-1ubuntu3.11 is to be installed
E: Unable to correct problems, you have broken packages.
root@Machine1:/home/azureuser#
```



```

root@Machine1:/home/azureuser
Note, selecting 'gitlab-runner' for glob 'git*'
Note, selecting 'gitlab-workhorse' for glob 'git*'
Note, selecting 'gitweb' for glob 'git*'
Note, selecting 'git-meawik1' for glob 'git*'
Note, selecting 'git-mirror' for glob 'git*'
Note, selecting 'git-quickstats' for glob 'git*'
Note, selecting 'gitlab-ci-multi-runner' for glob 'git*'
Note, selecting 'git-repair' for glob 'git*'
Note, selecting 'git-crecord' for glob 'git*'
Note, selecting 'git-email' for glob 'git*'
Note, selecting 'git-secret' for glob 'git*'
Note, selecting 'git-buildpackage-rpm' for glob 'git*'
Note, selecting 'git-annex' for glob 'git*'
Note, selecting 'git-crypt' for glob 'git*'
Note, selecting 'git-dashboards' for glob 'git*'
Note, selecting 'git-tiles' for glob 'git*'
Note, selecting 'gitolite3' for glob 'git*'
Note, selecting 'gitlabcadabra' for glob 'git*'
Note, selecting 'git-depush' for glob 'git*'
Note, selecting 'git-all' for glob 'git*'
Note, selecting 'git-cola' for glob 'git*'
Note, selecting 'gitlint' for glob 'git*'
Note, selecting 'git-core' for glob 'git*'
Note, selecting 'git-delta' for glob 'git*'
Note, selecting 'git-csv' for glob 'git*'
Note, selecting 'git-doc' for glob 'git*'
Note, selecting 'git-dpm' for glob 'git*'
Note, selecting 'git-flow' for glob 'git*'
Note, selecting 'git-completion' for glob 'git*'
Note, selecting 'git-el' for glob 'git*'
Note, selecting 'git' instead of 'git-core'
Note, selecting 'git' instead of 'git-completion'
Note, selecting 'gitlabci-multi-runner' instead of 'gitlab-ci-multi-runner'
git is already the newest version (1:2.25.1-ubuntu3.11).
git-man is already the newest version (1:2.25.1-ubuntu3.11).
git-man is set to manually installed.
Some packages could not be installed. This may mean that you have
requested an impossible situation or if you are using the unstable
distribution that some required packages have not yet been created
or been moved out of Incoming.
The following information may help to resolve the situation:

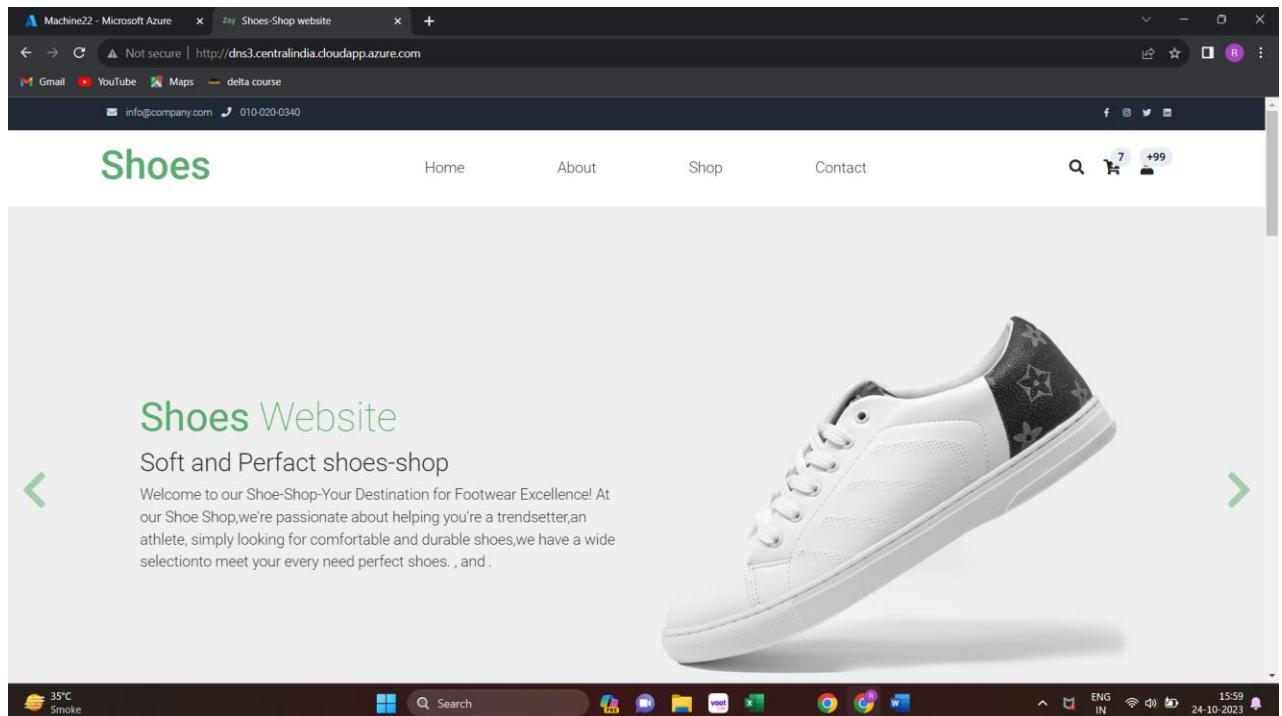
The following packages have unmet dependencies:
git-daemon-run : Conflicts: git-daemon-sysvinit but 1:2.25.1-ubuntu3.11 is to be installed
git-daemon-sysvinit : Conflicts: git-daemon-run but 1:2.25.1-ubuntu3.11 is to be installed
E: Unable to correct problems, you have held broken packages.
root@Machine1:/home/azureuser# git --version
git version 2.25.1
root@Machine1:/home/azureuser# 

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root@Machine1:/var/www/html
Reading package lists... Done
Building dependency tree
Reading state information... Done
apache2 is already the newest version (2.4.41-4ubuntu3.14).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
root@Machine1:/home/azureuser# apt upgrade
Reading package lists... Done
Building dependency tree
Reading state information... Done
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
root@Machine1:/home/azureuser# git --version
git version 2.25.1
root@Machine1:/home/azureuser# apache2 --version
[Sun Oct 15 19:16:10.617501 2023] [core:warn] [pid 1710] AH00111: Config variable ${APACHE_RUN_DIR} is not defined
apache2: Syntax error on line 80 of /etc/apache2/apache2.conf: DefaultRuntimeDir must be a valid directory, absolute or relative to ServerRoot
root@Machine1:/home/azureuser# ls
templatemo_559_zay_shop zay_shop.zip
root@Machine1:/home/azureuser# cd /var/www/html/templatemo_559_zay_shop/
root@Machine1:/home/azureuser/templatemo_559_zay_shop# ls
about.html assets contact.html index.html shop-single.html shop.shop
root@Machine1:/home/azureuser/templatemo_559_zay_shop# cp -r assets/ /var/www/html
root@Machine1:/home/azureuser/templatemo_559_zay_shop# ls
about.html assets contact.html index.html shop-single.html shop.shop
root@Machine1:/home/azureuser/templatemo_559_zay_shop# cd ..
root@Machine1:/var/www/html# ls
about.html assets contact.html index.html shop-single.html shop.shop
root@Machine1:/var/www/html# service apache2 restart
root@Machine1:/var/www/html# 

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```



Commands:

```
root@Machine1:/var/www/html# history
root@Machine1:/var/www/html# histor
Command 'histor' not found, did you mean:
  command 'listor' from deb emboss (6.6.0+dfsg-7ubuntu2)
Try: apt install <deb name>
root@Machine1:/var/www/html# history
 1 apt update
 2 apt upgrade
 3 clear
 4 apt install apache2
 5 service apache2 start
 6 service apache2 status
 7 apt install git
 8 apt-get install git* -y
 9 git --version
10 cd /var/www/html
11 ls
12 rm rf index.html
13 rm rf index.html
14 ls
15 wget C:/Users/RIYAA/Downloads/Tourist Free Website Template - Free-CSS.com.zip"
16 exit
17 :wq
18 ls
19 exit
20 wget C:/Users/RIYAA/Downloads/Tourist Free Website Template - Free-CSS.com.zip"
21 exit
22 git --version
23 apache2 --version
24 wget https://www.free-css.com/assets/files/free-css-templates/download/page296/zay-shop.zip
25 wget https://www.free-css.com/assets/files/free-css-templates/download/page281/zay-shop.zip
26 ls
27 unzip zay-shop.zip
28 apt install unzip
29 unzip zay-shop.zip
30 ls
31 cd templatem_559_zay_shop/
32 ls
33 cp about.html contact.html index.html shop-single.html shop.html /var/www/html
34 ls
35 cd
36 ls
37 cd /var/www/html
38 ls
39 cd
40 cd templatem_559_zay_shop/
```

```
root@Machine1:/var/www/html#
40 cd templatem0_559_zay_shop/
41 cd
42 cd /
43 sudo su
44 apache2 --version
45 apt update
46 apt install apache2
47 apt upgrade
48 git --version
49 apache2 --version
50 ls
51 cd templatem0_559_zay_shop/
52 ls
53 cp -r assets/ /var/www/html
54 cd
55 cd
56 cd /var/www/html
57 ls
58 service apache2 restart
59 clear
60 histor
61 history
root@Machine1:/var/www/html# clear
```



5.4 Create DNS Zone for hosting

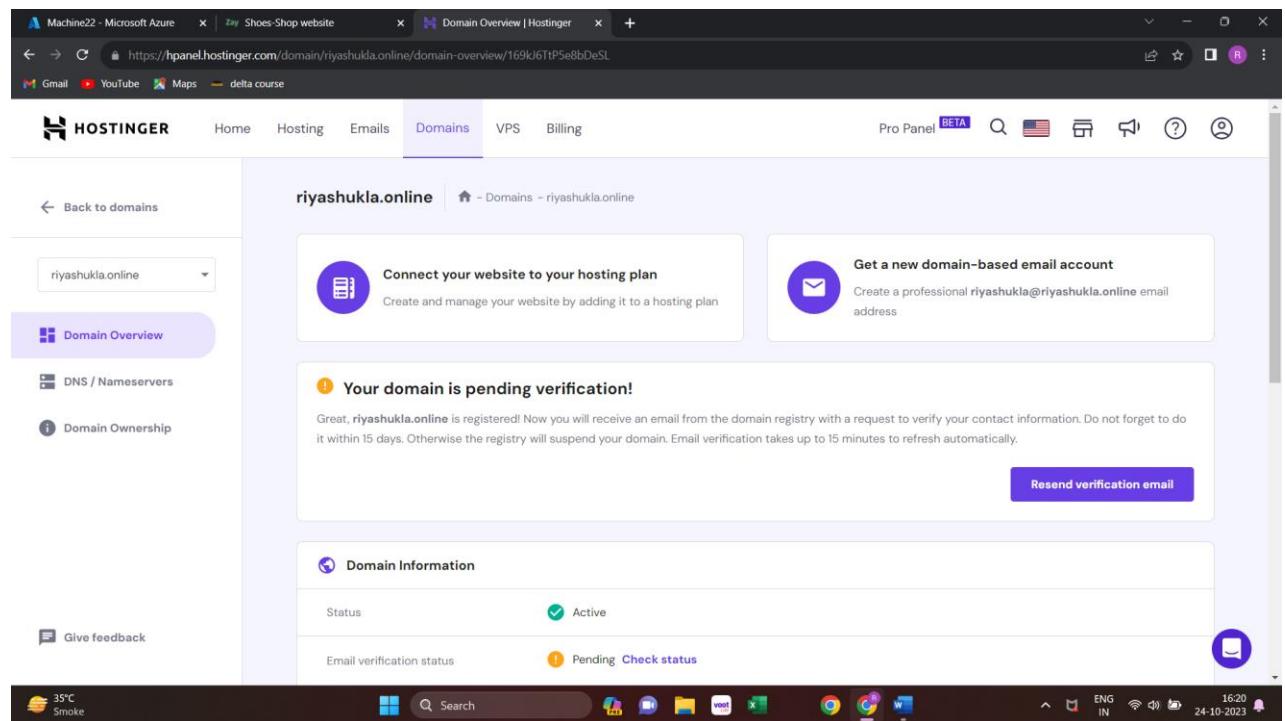
Step 1:Visit Hostinger's website

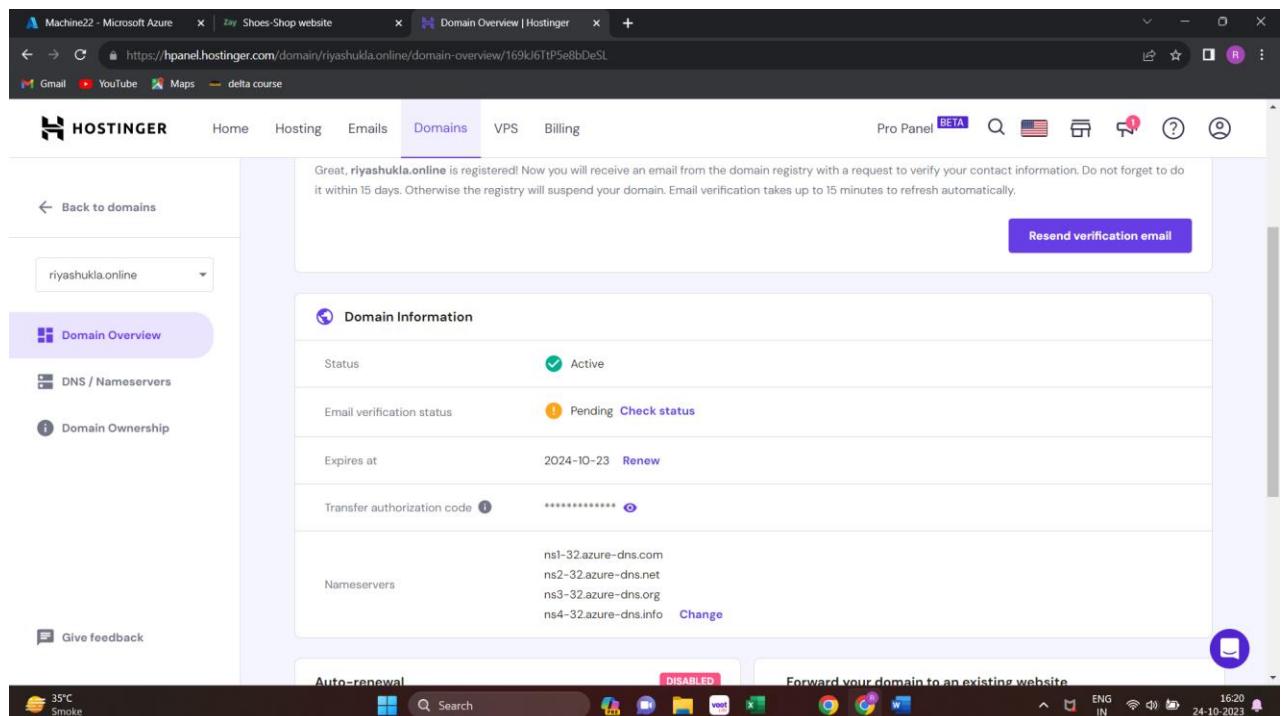
Step 2:Search for Your Domain(riyashukla.online)

Step 3:Review your cart, sign in or Create an account

Step 4:Place your order confirm

Step 5:Domain Registration





- Create a DNS zone to host your website domain name .This means that when someone types in your websites address in a web browser, the DNS zone directs them to the correct destination.In this setup, its linked to the traffic manager

Essentials

- Resource group ([move](#)) [azure_project_static_website](#)
- Subscription ([move](#)) [Azure for Students](#)
- Subscription ID 86693717-3499-4a11-89a4-9d54d24a4cda

Name	Type	TTL	Value	Alias resource type	Alias target
@	NS	172800	ns1-32.azure-dns.com. ns2-32.azure-dns.net. ns3-32.azure-dns.org. ns4-32.azure-dns.info.		...
@	SOA	3600	Email: azuredns-host... Host: ns1-32.azure-d... Refresh: 3600 Retry: 300 Expire: 2419200		...

5.5 Create traffic manager (Priority based)

Traffic Manager to distribute incoming requests between the two VMs in subnet1. It improves the availability and Performance of your website by load balancing.

- Now we need to create Traffic Manager it distributing the User's request to the appropriate Virtual Machine within your subnet 1. This ensures that your website loads efficiently and reliably for your visitors.
- Create a Traffic Manager Profile:
 - In the Azure Portal, search for and select "Traffic Manager profiles."
 - Click the "+ Add" button to create a new Traffic Manager profile.
 - Follow the prompts to configure the profile with your desired settings, including routing method (e.g., Priority, Weighted, Geographic), and add the endpoints (the VMs in your Subnet 1).
 - We select routing method (Priority)

The screenshot shows the Microsoft Azure portal interface. The left sidebar has a navigation tree with 'Load Balancing Services' and 'Traffic Manager' selected. The main content area is titled 'websitesstatic' and shows the 'Traffic Manager profile' overview. It includes sections for 'Essentials' (Resource group, DNS name, Status, Subscription ID), 'Settings' (Configuration, Real user measurements, Traffic view, Endpoints, Properties, Locks), and 'Monitoring' (Alerts, Metrics, Diagnostic settings). A table at the bottom lists two endpoints: 'Machine1' and 'Machine2', each with its status, monitor status, type (Azure endpoint), and priority (1 and 2 respectively). The status for both is 'Enabled' and 'Online'.

Link Traffic Manager to the DNS zone

- In the DNS Zone settings, under "Records," you should create a CNAME (Alias) record that points to your Traffic Manager profile. This is where you connect the DNS Zone to the Traffic Manager.
- Add a CNAME record with a name like "www" or "@", and set its value to the fully qualified domain name (FQDN) of your Traffic Manager profile.

The screenshot shows the Microsoft Azure portal interface. The user is navigating through the Azure portal to manage DNS zones. The main window displays the 'DNS zones' page for the domain 'riyashukla.online'. On the left, there's a navigation sidebar with options like 'Overview', 'Activity log', 'Access control (IAM)', 'Tags', 'Diagnose and solve problems', 'Properties', 'Locks', 'Monitoring', 'Alerts', 'Metrics', 'Automation', 'Tasks (preview)', and 'Export template'. The main content area shows the domain details, including 'Subscription ID' (86693717-3499-4a11-89a4-9d54d24a4cda), 'Azure for Students', and 'Tags (edit)'. Below this, a table lists DNS records:

Name	Type	TTL	Value	Alias resource type	Alias target
@	NS	172800	ns1-32.azure-dns.com. ns2-32.azure-dns.net. ns3-32.azure-dns.org. ns4-32.azure-dns.info.		...
@	SOA	3600	Email: azuredns-host... Host: ns1-32.azure-d... Refresh: 3600 Retry: 300 Expire: 2419200 Minimum TTL: 300 Serial number: 1		...
shoes	CNAME	3600	websitesstatic.traffic...		...

Update Your Domain Registrar:

- If your domain is registered with a domain registrar (Hostingr), you need to update the DNS settings there. Log in to your domain registrar's website.
- Change the nameservers or DNS settings to point to Azure's DNS servers (you can find these DNS server details in your Azure DNS Zone settings).

A nyashukla.online - Microsoft Edge | Shoes-Shop website | DNS / Nameservers | Hostinger | Azure Shoe Shop Deployment | +

https://hpanel.hostinger.com/domain/riyashukla.online/dns?openEditNameservers=true

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HOSTINGER Home Hosting Emails Domains VPS Billing Pro Panel BETA

Back to domains riyashukla.online Domain Overview DNS / Nameservers Domain Ownership Give feedback

Nameservers handle internet requests for your domain. You can use Hostinger nameservers or use custom nameservers to point to other hosting provider.

ns1-32.azure-dns.com
ns2-32.azure-dns.net
ns3-32.azure-dns.org
ns4-32.azure-dns.info

Select Nameservers

Use Hostinger nameservers (recommended)
 Change nameservers

ns1-32.azure-dns.com
ns2-32.azure-dns.net
ns3-32.azure-dns.org
ns4-32.azure-dns.info

Save Cancel

34°C Smoke Search ENG IN 16:56 24-10-2023

A Machine1 - Microsoft Azure | DNS / Nameservers | Hostinger | Azure Shoe Shop Deployment | Shoes-Shop website | +

Not secure | http://shoes.riyashukla.online

Gmail YouTube Maps delta course info@company.com 010-020-0340

Shoes Home About Shop Contact

7 +99

Shoes Website

Soft and Perfect shoes-shop

Welcome to our Shoe-Shop-Your Destination for Footwear Excellence! At our Shoe Shop, we're passionate about helping you're a trendsetter, an athlete, simply looking for comfortable and durable shoes, we have a wide selection to meet your every need perfect shoes. , and .

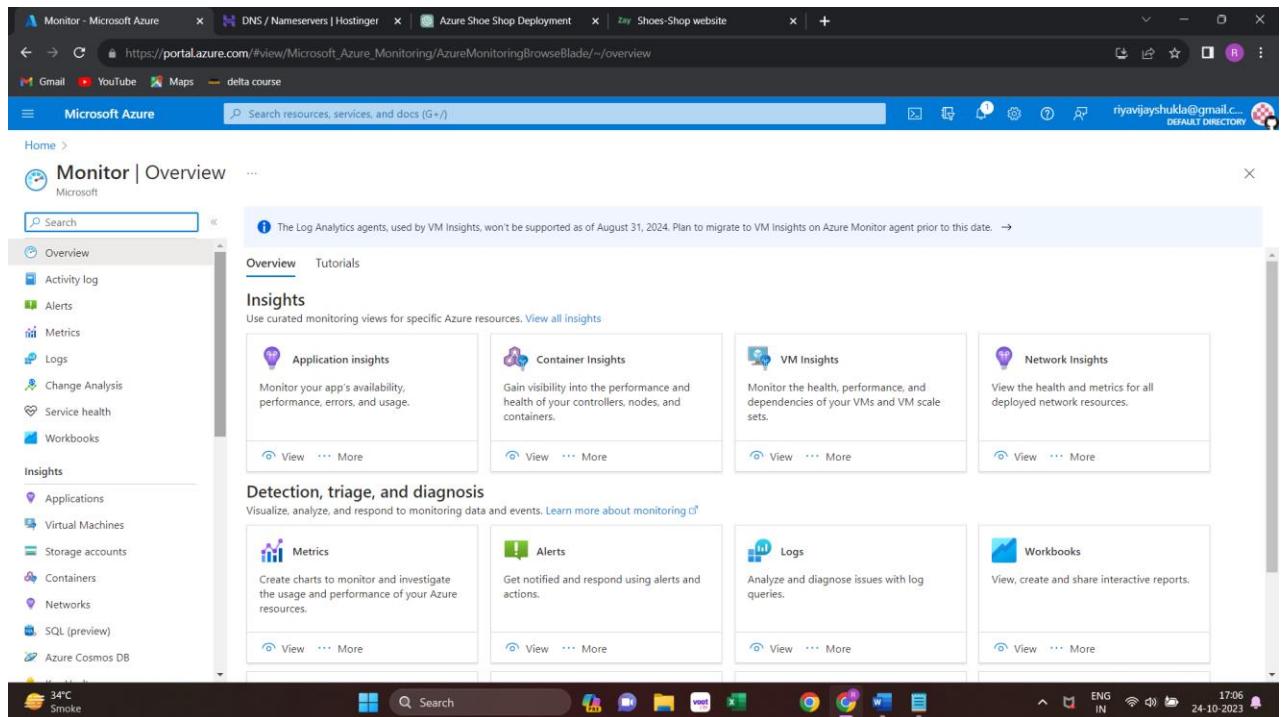


shoes.riyashukla.online/#template-mo-zay-hero-carousel

34°C Smoke Search ENG IN 16:59 24-10-2023

5.6 Azure Monitor:

Monitoring in Azure is a crucial aspect of managing and maintaining the health, performance, and security of your cloud resources. Azure provides a comprehensive set of monitoring and management tools. Here's an overview of how monitoring works in Azure:



Azure Alerts: You can configure alerts to notify you when specific conditions are met. For example, you can set up alerts for high CPU usage, low memory, or any other metrics. These alerts can be sent to various notification channels, including email, SMS, or even third-party services like Slack.

Azure Monitor for VMs: If you're running virtual machines (VMs) in Azure, you can use this service to collect performance and health data for those VMs.

Metrics: Metrics are numerical data collected from your resources. Azure Monitor collects, stores, and analyse metrics to help you understand how your resources are performing. You can set up alerts based on these metrics to be notified of any issues.

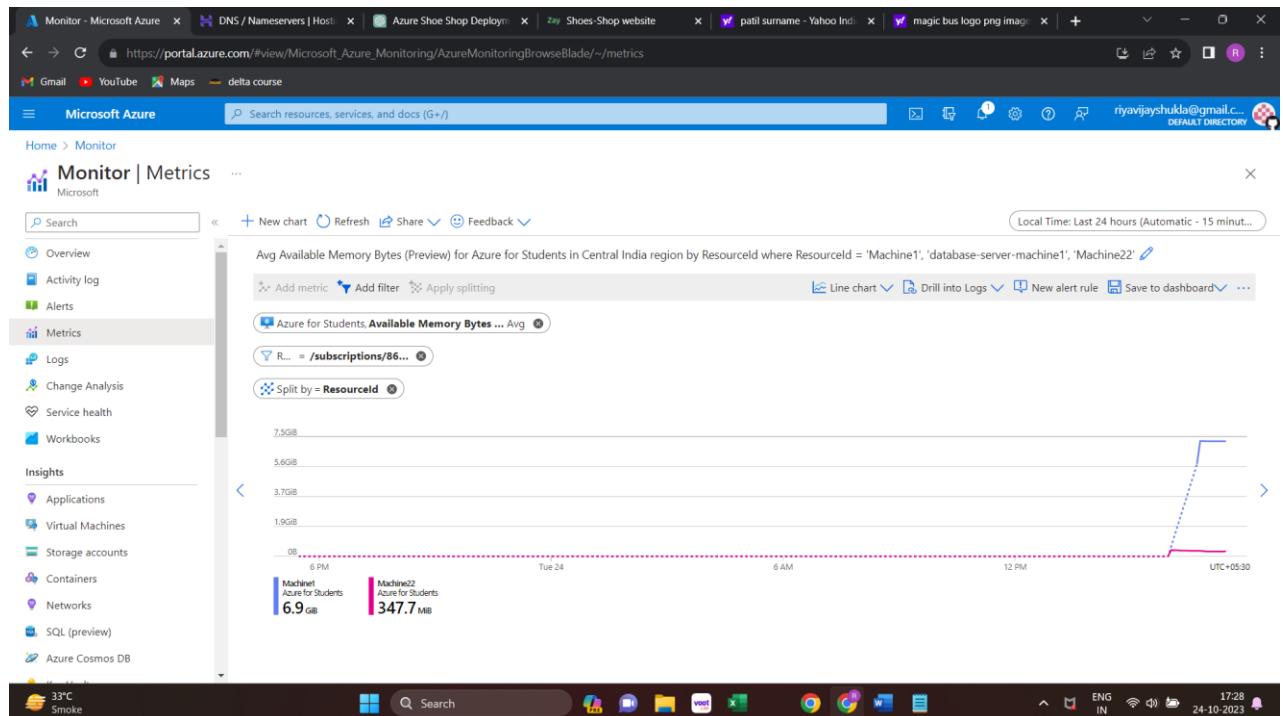
Azure Application Insights: This service is part of Azure Monitor and is focused on application performance monitoring. It helps you track the performance and usage of your web applications and other services.

Azure Alerts:

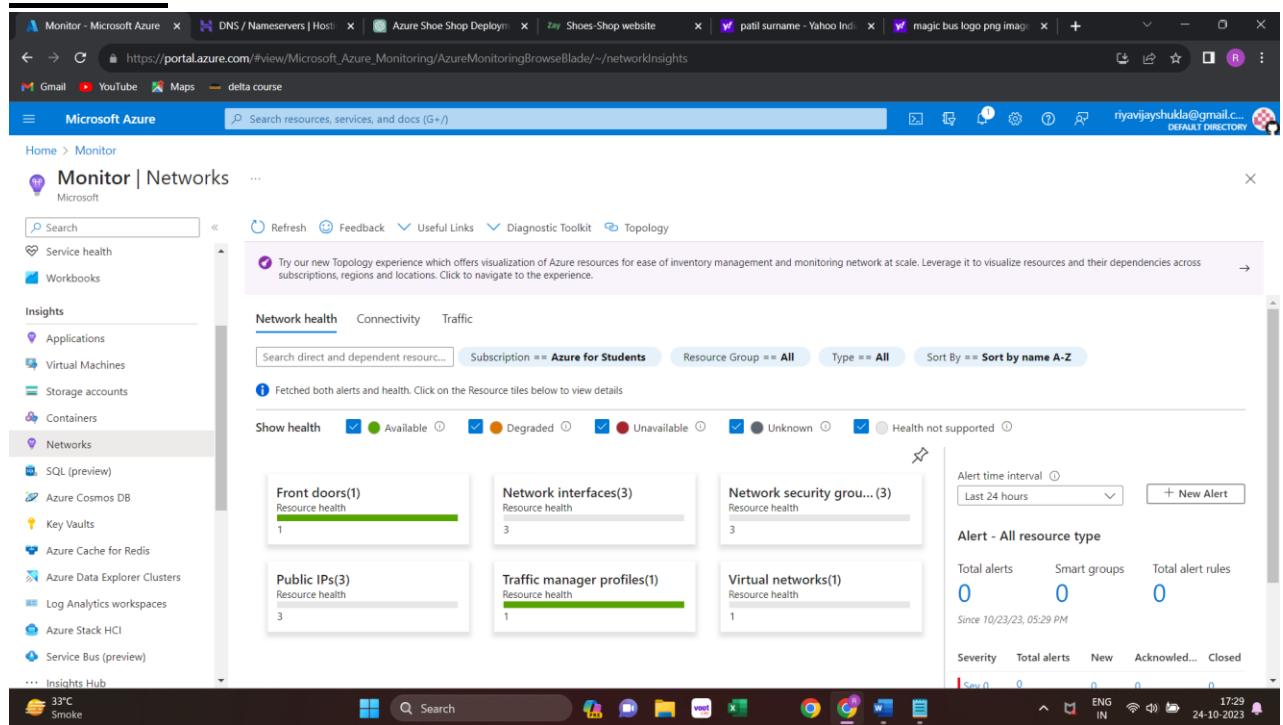
The screenshot shows the Azure Monitor Alerts blade. The left sidebar includes links for Overview, Activity log, Alerts (selected), Metrics, Logs, Change Analysis, Service health, Workbooks, and Insights (Applications, Virtual Machines, Storage accounts, Containers, Networks, SQL (preview), Azure Cosmos DB). The main area displays a summary of alerts: Total alerts (0), Critical (0), Error (0), Warning (0), Informational (0), and Verbose (0). A search bar and filter options (Subscription: 2 selected, Time range: Past 24 hours, Alert condition: Fired, Severity: all) are at the top. Below the summary is a table with columns: Name (Name ↑), Severity (Severity ↑), Affected resource (Affected resource ↑), Alert condition (Alert condition ↑), User response (User response ↑), and Fire time (Fire time ↑). A large exclamation mark icon and the text "No alerts found" are centered in the main area. The bottom status bar shows the date (24-10-2023) and time (17:25).

Metrics:

The screenshot shows the Azure Monitor Metrics blade. The left sidebar includes links for Overview, Activity log, Alerts, Metrics (selected), Logs, Change Analysis, Service health, Workbooks, and Insights (Applications, Virtual Machines, Storage accounts, Containers, Networks, SQL (preview), Azure Cosmos DB). The main area features a chart titled "New chart" with a Y-axis from 0 to 100 and an X-axis from 6 PM to Tue 24. It includes sections for "Add metric", "Add filter", and "Apply splitting". To the right, a "Select a scope" dialog is open. It has tabs for "Browse" (selected) and "Recent". Under "Subscription", "Azure for Students" is selected. Under "Resource types", "Virtual machines" is selected. Under "Locations", "All locations" is selected. A search bar "Search to filter items..." is present. The "Scope" table lists resources: "Azure_Project_Static_Website" (Resource group), "database-server-machine1" (Virtual machine, Central India), and "Machine1" (Virtual machine, Central India). A note states: "Why can't I select multiple resources? You must select items of the same resource type and location. To select resources of a different resource type or location, please first uncheck your current selection." Below this is a "Selected scopes" section listing "Machine1", "database-server-machine1", and "Machine22", all categorized as "Virtual machine" under "Central India". Buttons for "Apply" and "Cancel" are at the bottom, along with a "Clear all selections" link. The bottom status bar shows the date (24-10-2023) and time (17:27).



Network



Chapter 6. Conclusion

In summary, our project successfully leveraged Azure's cloud computing capabilities to create and deploy a shoe shop website with a strong focus on availability, performance, and user experience. The use of Virtual Networks and Subnets ensured a secure and organized infrastructure. Traffic Manager efficiently managed incoming traffic, while DNS Zone facilitated seamless domain name resolution.

Our commitment to monitoring and alerts helped us stay proactive in maintaining the website's reliability. Lastly, the Azure CDN optimized content delivery, making our site faster and more responsive to our customers.

In conclusion, by harnessing Azure's cloud services and following best practices, we've not only created a functional online presence but also ensured that it's accessible, reliable, and responsive, providing an excellent shopping experience for our customers. This project demonstrates the power of cloud computing in enabling e-commerce businesses to thrive in the digital age.

