

## **Web Application Deployed via Jenkins**

### **Practice Project**

#### **Aim:**

Create a sample web application in .NET and configure it to be deployed via Jenkins.

#### **GitHub link:**

<https://github.com/Sukirthalakshmanan1/JenkinsWebApplication>

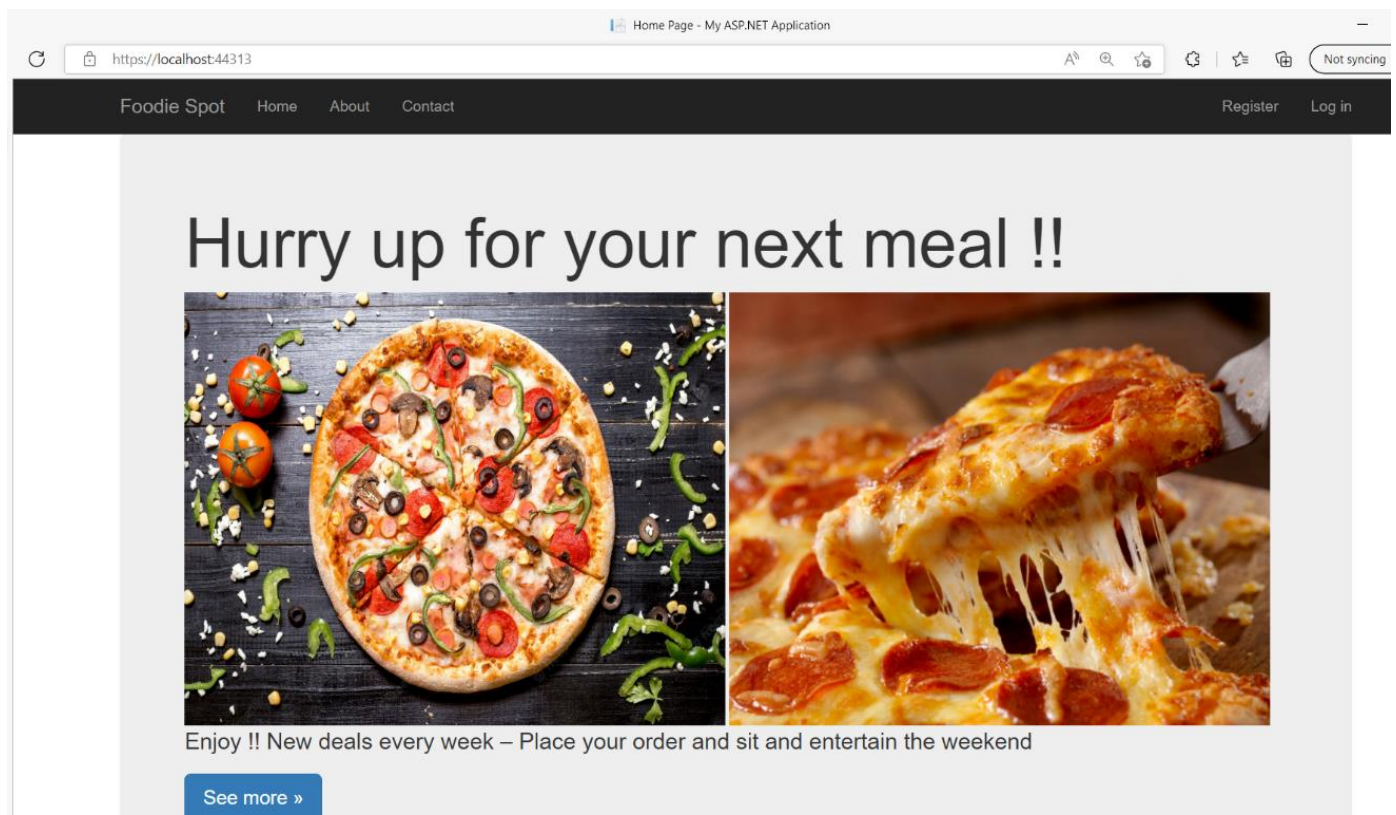
#### **Procedure:**

- ✓ Create three class Library BAL(Business Access Logic layer),DAL,Helper classes.
- ✓ BAL class has the properties of the class and their validations
- ✓ DAL class has the logic to access the data from the database
- ✓ Helper class is used as an extra layer over DAL to hide the details of the logic.
- ✓ Add Business Reference to DAL and Helper.
- ✓ Add DAL reference to Helper.
- ✓ Add Helper reference to Application.
- ✓ Build the solution and set the dependencies.
- ✓ MVC depends on BAL and Helper
- ✓ Data Access Library depends on BAL
- ✓ Helper depends on BAL and DAL
- ✓ Create a model Pizza1
- ✓ Create a controller class pizzaController
- ✓ Create views for Create,delete,details>Edit and list
- ✓ And run all
- ✓ After the Application runs push it to GitHub repository
- ✓ Open Jenkins and create new item -> free style project and click ok.
- ✓ Go to configure and go to Github repository and paste the Github link
- ✓ And write your credentials
- ✓ Save and build
- ✓ After successful build go to configure and add visual studio

- ✓ And copy the msbuild path and paste and save
- ✓ Build now
- ✓ On successful build Console Output is shown.
- ✓ Go to configure and build trigger->build periodically
- ✓ Set the time to build automatically and click save.
- ✓ Build happens automatically.

## Output:

## Home Page:



Home Page - My ASP.NET Application

https://localhost:44313

Not syncing

Foodie Spot


Home

About

Contact

Register

Log in



Enjoy !! New deals every week – Place your order and sit and entertain the weekend

[See more »](#)

### Order Pizza Now..

If you, like everyone else in the world, can never say no to pizza, then this list is just what you've been looking for. Pizza, as we know, can help us through heartbreaks, make Netflix binges more delightful and also is just such a great dish to share with friends when you are hanging out together. Hence, it only makes sense for us to tell you where to get the best pizzas in Chennai because friends help friends find the best of the best. Read on. You don't have to thank us.

[See more »](#)

### Tuscan Pizzeria

This restaurant boasts a theme inspired by The Godfather, which in itself makes it attractive. And then you take a look at their pizza offerings, and you're sold. They've got seafood pizzas, for those who are feeling adventurous, as well as dessert pizzas because those are now a thing and we love it! But if you're a traditional pizza eater, don't worry, we've got you covered because they have many options to choose from in that category as well. Give the Pollo E Pesto or the Peri Peri Veg a try, and you won't be sorry. Glutton for food? Try their Monster 30-inch pizzas!

[Learn more »](#)

### Piccante

Ever craved a pizza but found it to be too much to finish it all by yourself? Head to Chicago Pizza which sells single slice pizzas from an 18-inch round piece with your favourite toppings. You could go for their non-veg overload, which features different kinds of spicy, meaty toppings or you could go for the simple old margarita. The place is mostly for take-away though, so you could grab a few slices to head home and enjoy the lot with your favourite episode of FRIENDS.

[Learn more »](#)

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## Contact:

Contact - My ASP.NET Application

https://localhost:44313/Home/Contact

Not syncing

Foodie Spot

Home

About

Contact

Register

Log in

## Contact.

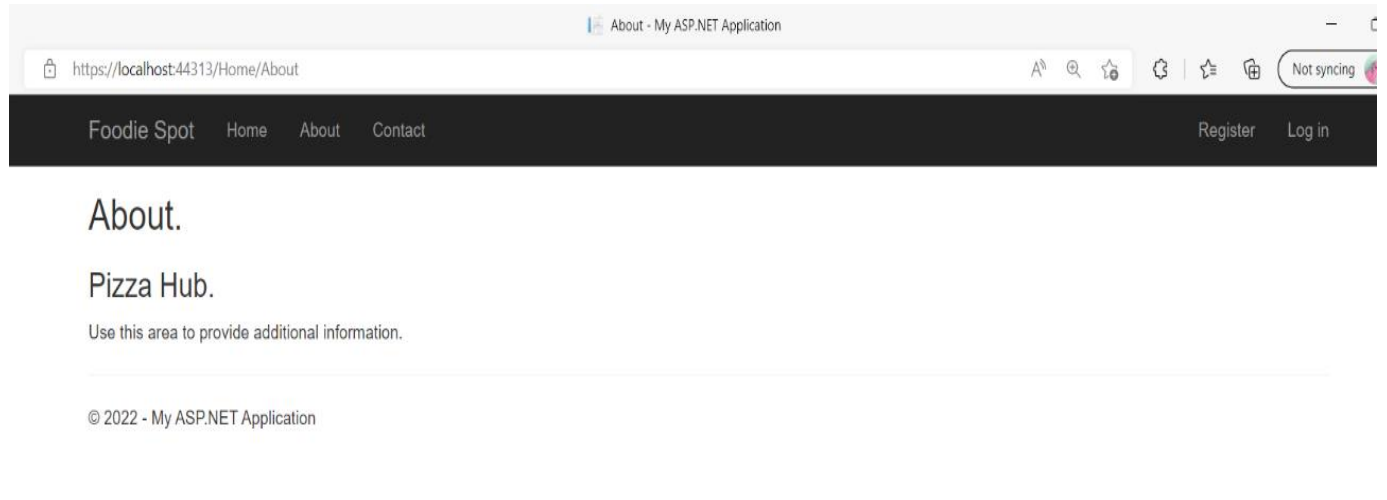
### Contact details.

One Microsoft Way  
Redmond, WA 98052-6399  
P: 425.555.0100

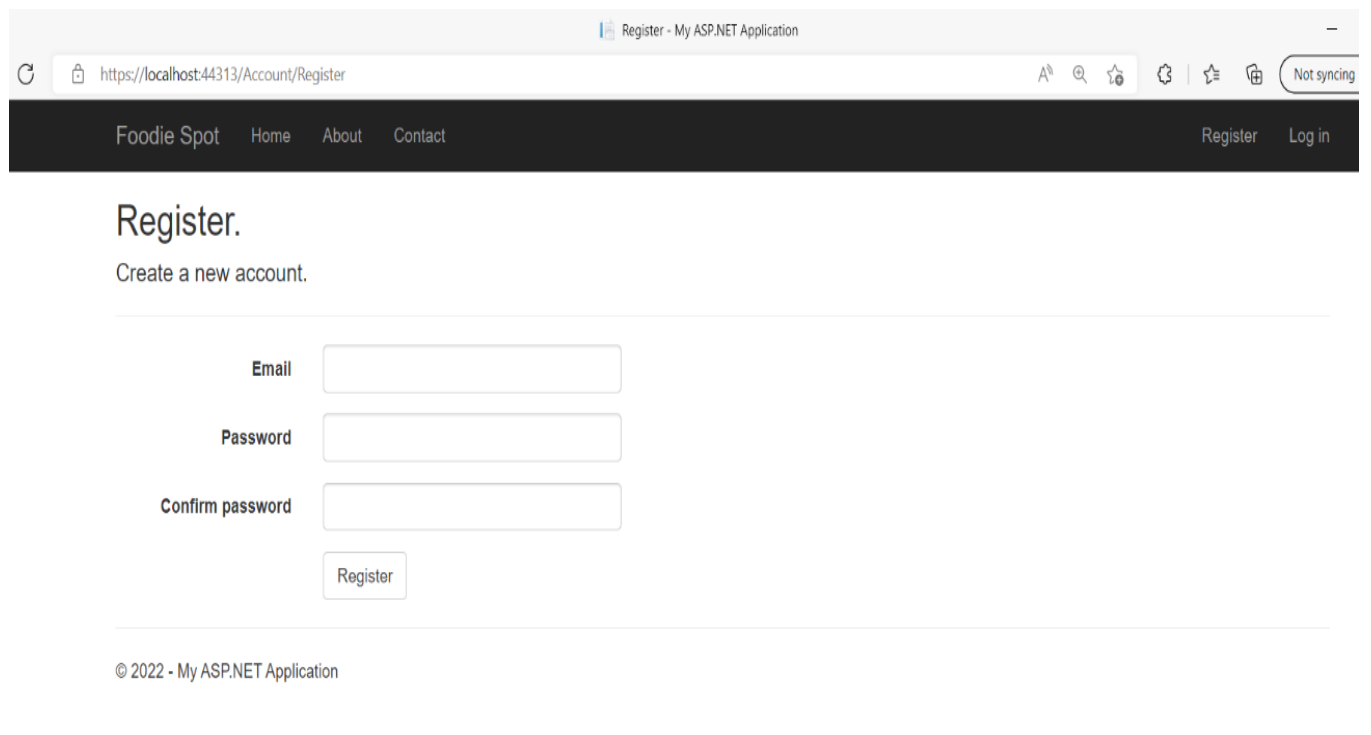
**Support:** [Support@example.com](mailto:Support@example.com)  
**Marketing:** [Marketing@example.com](mailto:Marketing@example.com)

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## About:



## Registration:



## Validations:

Register - My ASP.NET Application

https://localhost:44313/Account/Register

Foodie Spot Home About Contact Register Log in

### Register.

Create a new account.

- The Email field is not a valid e-mail address.
- The Password must be at least 6 characters long.
- The password and confirmation password do not match.

Email

Password

Confirm password

Register

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Register - My ASP.NET Application

https://localhost:44313/Account/Register

Foodie Spot Home About Contact Register Log in

### Register.

Create a new account.

- The Password must be at least 6 characters long.
- The password and confirmation password do not match.

Email

Password

Confirm password

Register

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Register - My ASP.NET Application

https://localhost:44313/Account/Register

Foodie Spot Home About Contact Register Log in

## Register.

Create a new account.

- Passwords must have at least one digit ('0'-'9'). Passwords must have at least one uppercase ('A'-'Z').

Email

Password

Confirm password

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## On successful Registration:

Register - My ASP.NET Application

https://localhost:44313/Account/Register

Foodie Spot Home About Contact Register Log in

## Register.

Create a new account.

Email

Password

Confirm password

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Register - My ASP.NET Application

https://localhost:44313/Account/Register


Foodie Spot Home About Contact Register Log in

## Register.

Create a new account.

Email

Password

Confirm password  


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Home Page - My ASP.NET Application

https://localhost:44313

Foodie Spot Home About Contact Hello sukilax123@gmail.com Place My Order Log off

# Hurry up for your next meal !!

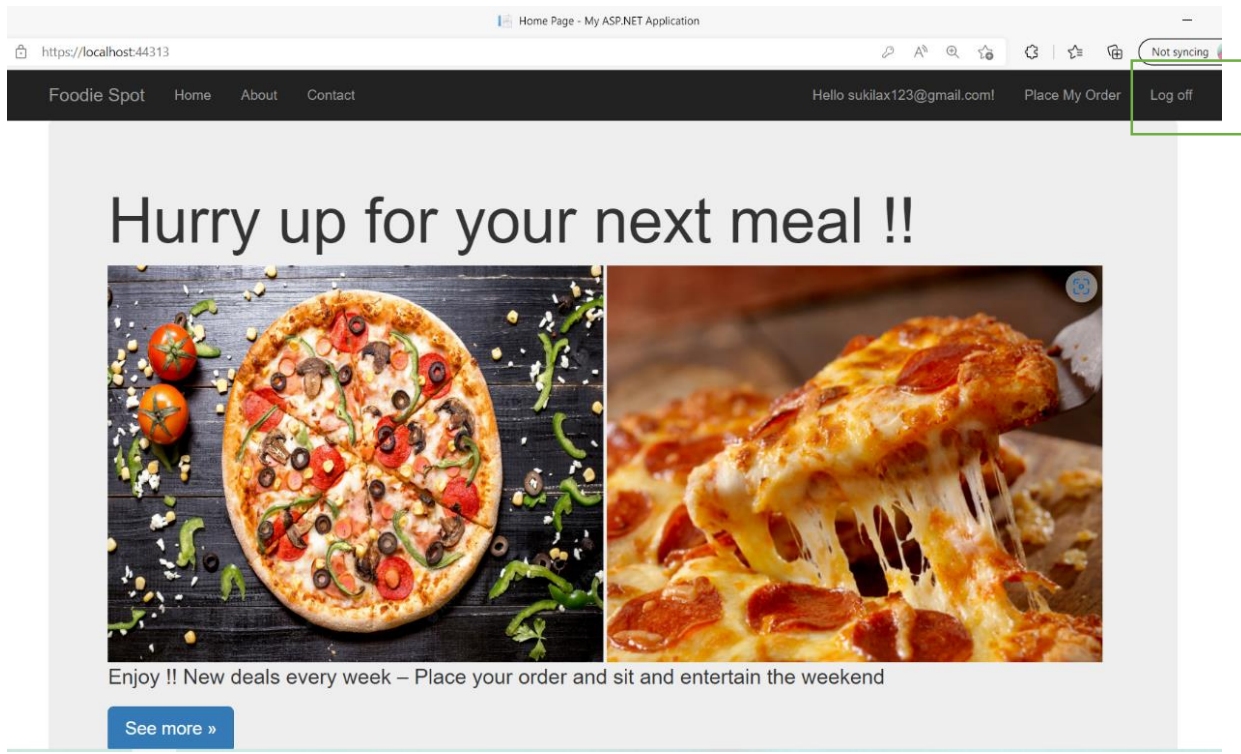


Enjoy !! New deals every week – Place your order and sit and entertain the weekend

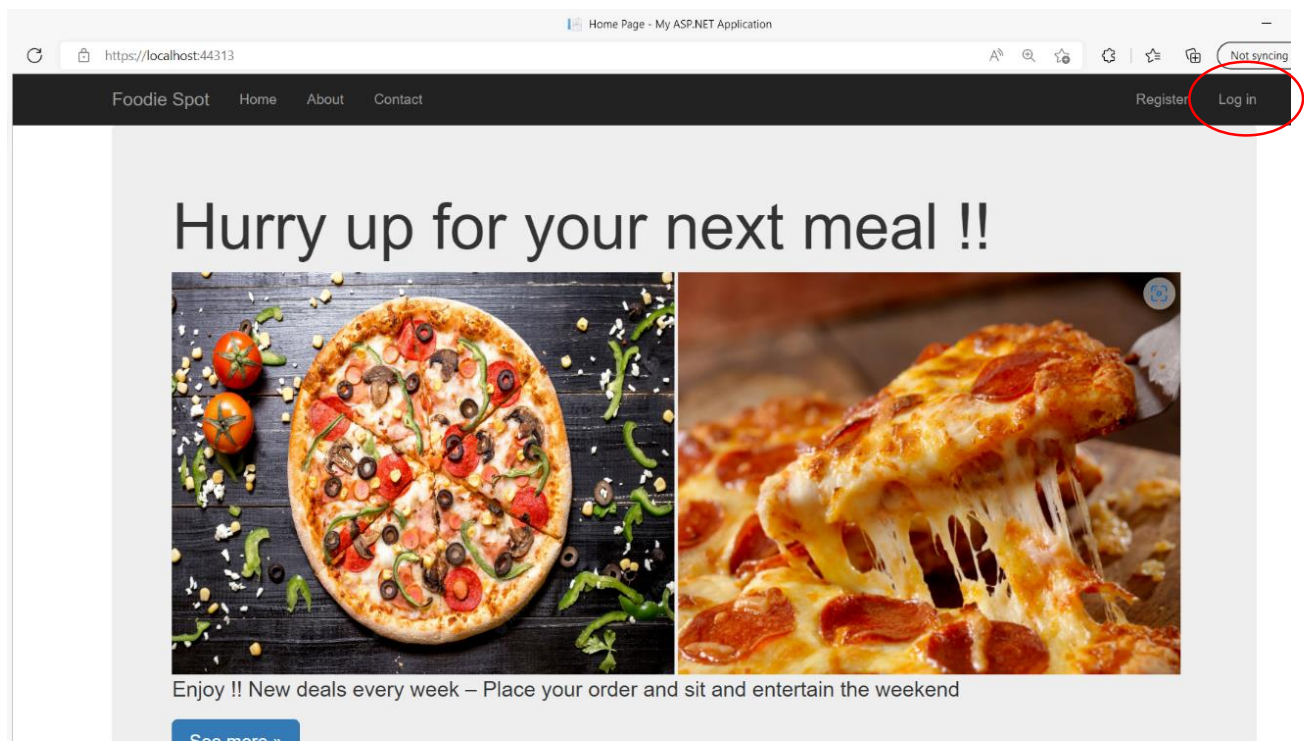
[See more »](#)



## Log off:



## Login :





Log in - My ASP.NET Application

https://localhost:44313/Account/Login

Foodie Spot Home About Contact Register Log in

## Log in.

Use a local account to log in.

Email

Password

☒ Remember me?

[Register as a new user](#)

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Use another service to log in.

There are no external authentication services configured. See [this article](#) for details on setting up this ASP.NET application to support logging in via external services.

### **On successful Login:**



Home Page - My ASP.NET Application

https://localhost:44313

Foodie Spot Home About Contact

Hello sukilax123@gmail.com! Place My Order Log off

# Hurry up for your next meal !!



Enjoy !! New deals every week – Place your order and sit and entertain the weekend

[See more »](#)


## Place my order:

Home Page - My ASP.NET Application

https://localhost:44313

Foodie Spot Home About Contact Hello sukilax123@gmail.com! **Place My Order** Log off

# Hurry up for your next meal !!



Enjoy !! New deals every week – Place your order and sit and entertain the weekend

See more »

calhost:44313/pizza

## Place order:

Index - My ASP.NET Application

https://localhost:44313/pizza

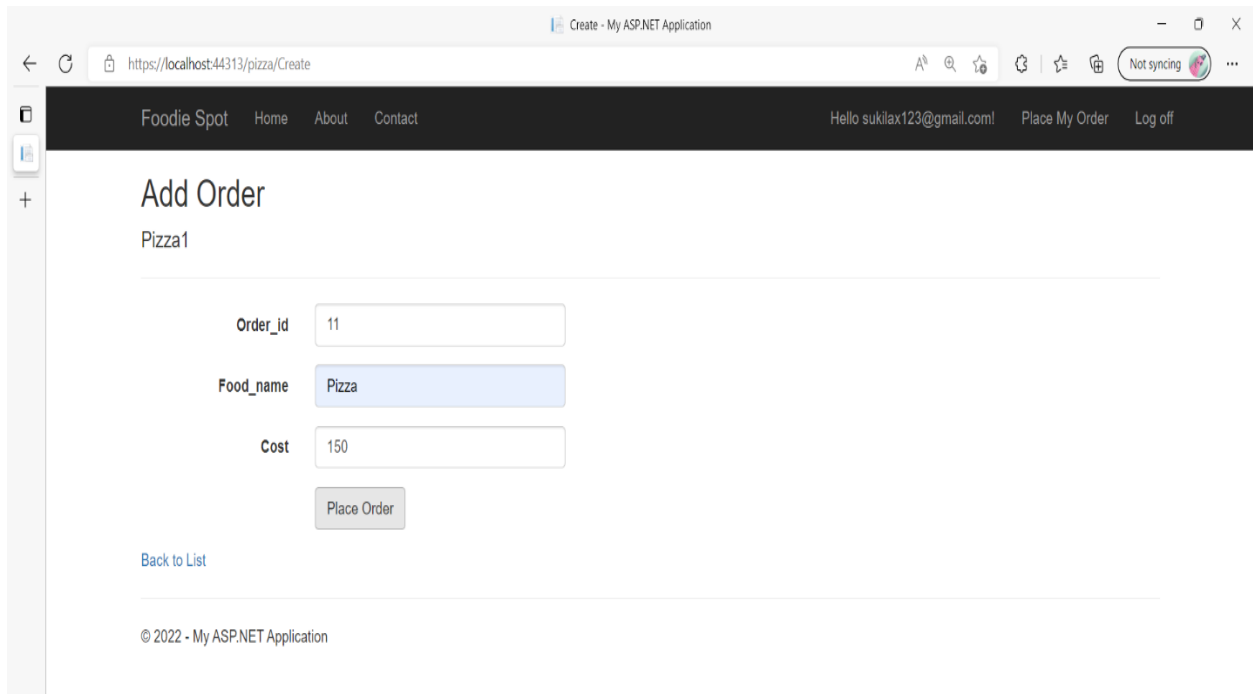
Foodie Spot Home About Contact Hello sukilax123@gmail.com! Place My Order Log off

## Pizza Hub

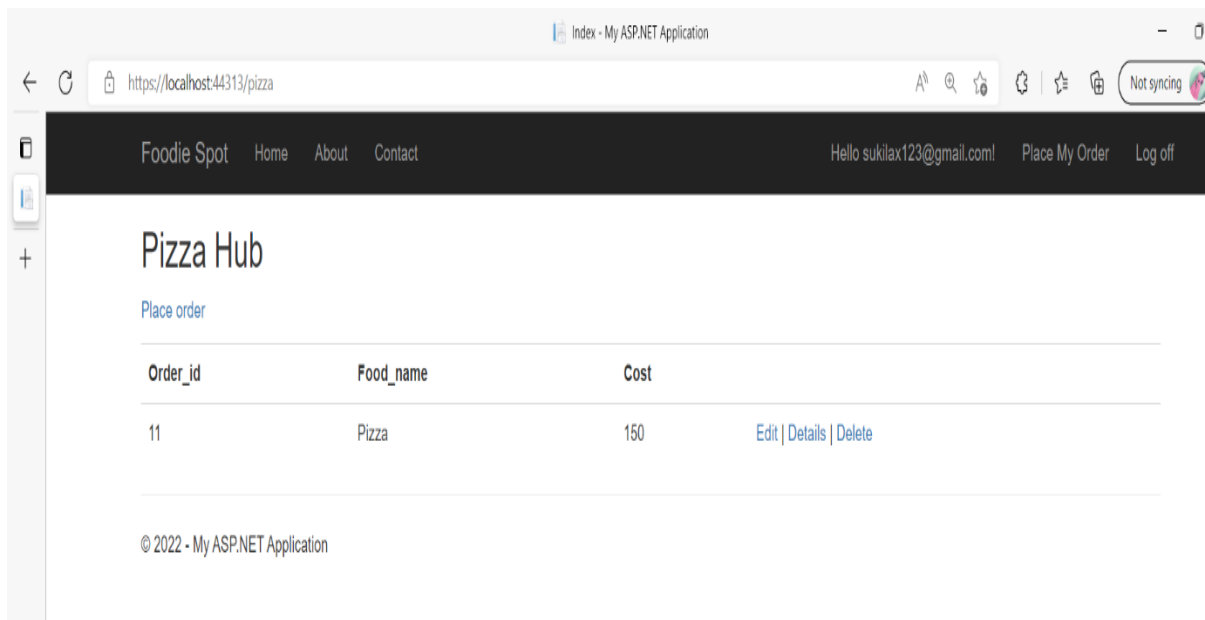
[Place order](#)

| Order_id | Food_name | Cost |
|----------|-----------|------|
|----------|-----------|------|

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**After adding an order list of order is displayed:**



## On clicking Edit to Update my order details:

Foodie Spot Home About Contact Hello sukilax123@gmail.com! Place My Order Log off

### Update My Order Details

Pizza1

Order\_id: 11

Food\_name: Pizza

Cost: 150

Save

[Back to List](#)

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Foodie Spot Home About Contact Hello sukilax123@gmail.com! Place My Order Log off

### Update My Order Details

Pizza1

Order\_id: 11

Food\_name: Pizza

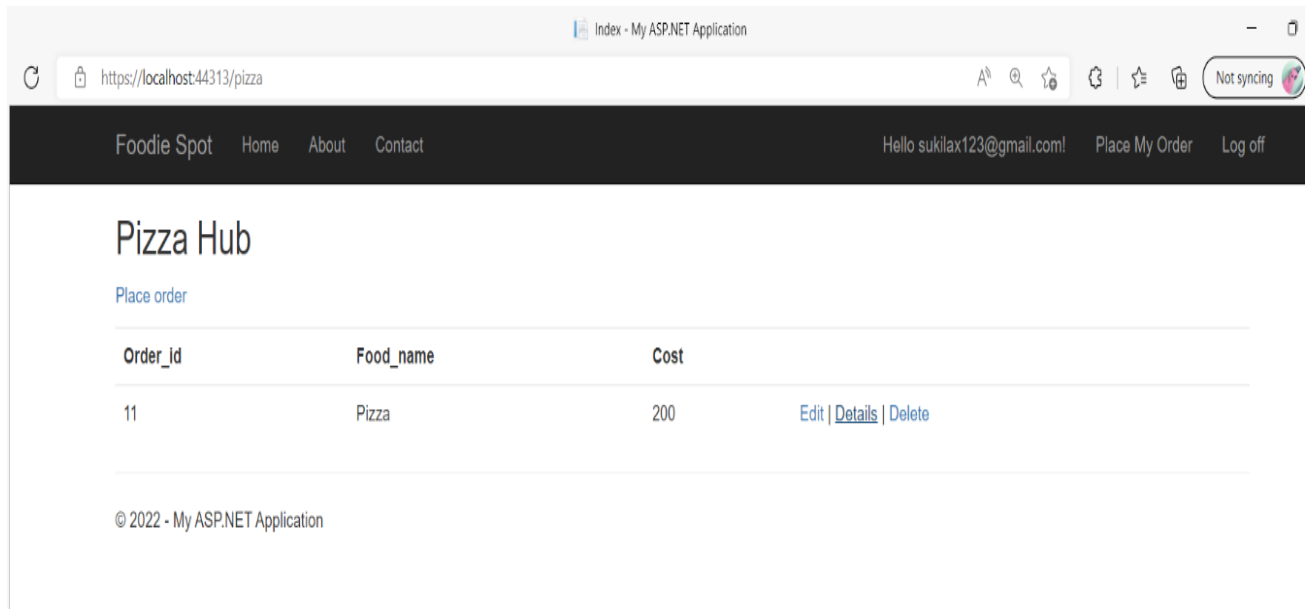
Cost: 200

Save

[Back to List](#)

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## After updating the order details:

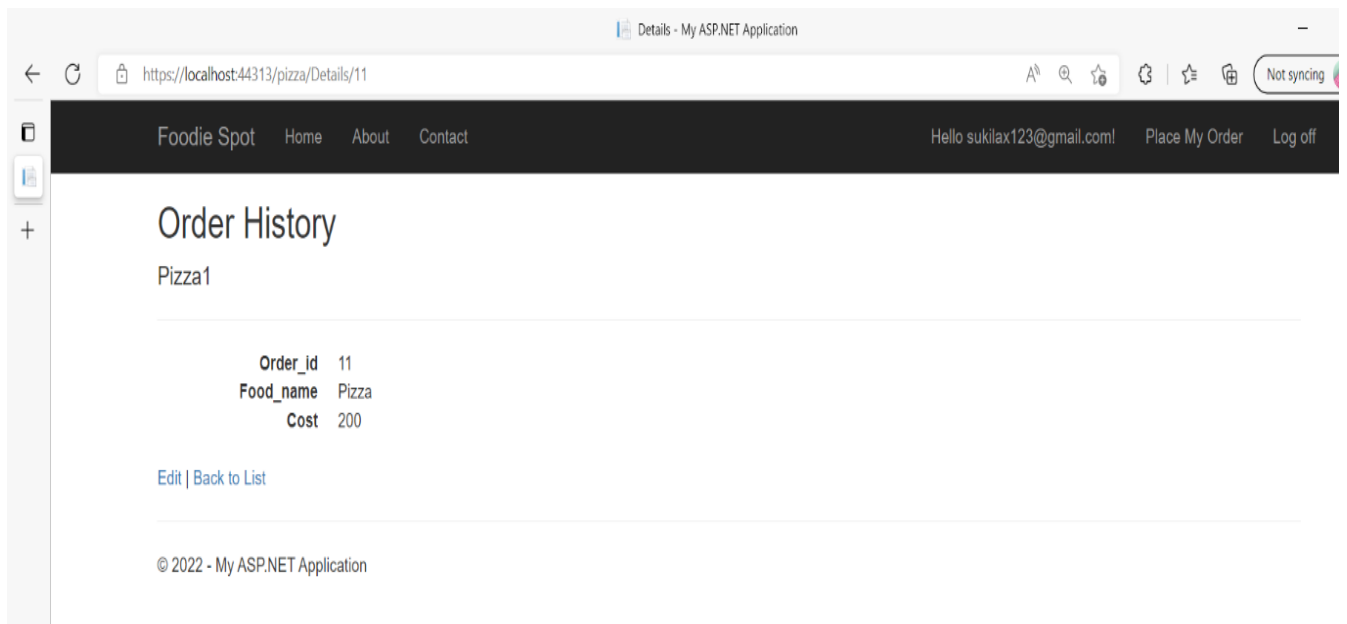


The screenshot shows a web browser window with the URL `https://localhost:44313/pizza`. The page title is "Index - My ASP.NET Application". The navigation bar includes "Foodie Spot", "Home", "About", "Contact", "Hello sukilax123@gmail.com!", "Place My Order", and "Log off". The main content area is titled "Pizza Hub" and includes a "Place order" link. Below this is a table with the following data:

| Order_id | Food_name | Cost |   |
|----------|-----------|------|---|
| 11       | Pizza     | 200  | <a href="#">Edit</a>   <a href="#">Details</a>   <a href="#">Delete</a> |

At the bottom of the page, there is a copyright notice: "© 2022 - My ASP.NET Application".

## Order History:



The screenshot shows a web browser window with the URL `https://localhost:44313/pizza/Details/11`. The page title is "Details - My ASP.NET Application". The navigation bar is the same as the previous screenshot. The main content area is titled "Order History" and includes a "Pizza1" link. Below this is a table with the following data:

| Order_id | Food_name | Cost |
|----------|-----------|------|
| 11       | Pizza     | 200  |

At the bottom of the page, there is a copyright notice: "© 2022 - My ASP.NET Application".



## On clicking Edit to update order details:

Foodie Spot Home About Contact Hello sukilax123@gmail.com! Place My Order Log off

### Update My Order Details

Pizza1

Order\_id

Food\_name

Cost

[Back to List](#)

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## After updation list of Order details is displayed:

Foodie Spot Home About Contact Hello sukilax123@gmail.com! Place My Order Log off

### Pizza Hub

[Place order](#)

| Order_id | Food_name   | Cost |   |
|----------|-------------|------|---|
| 11       | Pizza large | 200  | <a href="#">Edit</a>   <a href="#">Details</a>   <a href="#">Delete</a> |

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## Delete order:

Delete - My ASP.NET Application

https://localhost:44313/pizza/Delete/11

Foodie Spot | Home | About | Contact

Hello sukilax123@gmail.com! | Place My Order | Log off

Not syncing

### Delete Order

Are you sure you want to delete this?

Pizza1

|           |            |
|-----------|------------|
| Order_id  | 11         |
| Food_name | Pizza larg |
| Cost      | 200        |

Delete

 | [Back to List](#)

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## After deletion:

Index - My ASP.NET Application

https://localhost:44313/pizza

Foodie Spot | Home | About | Contact

Hello sukilax123@gmail.com! | Place My Order | Log off

Not syncing

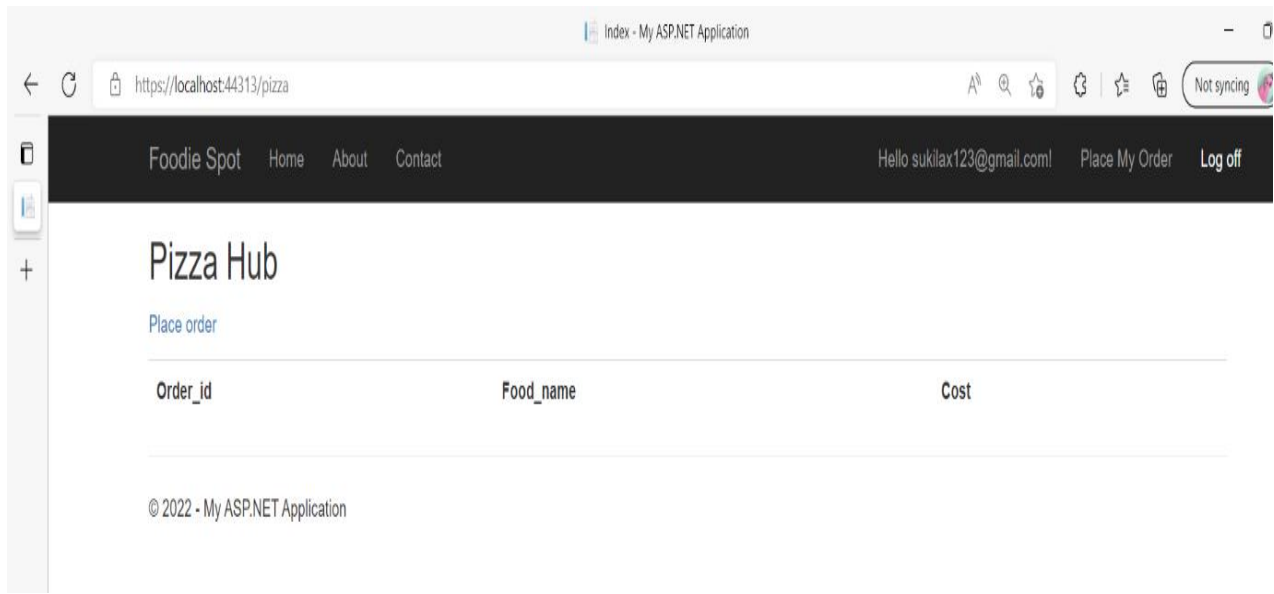
### Pizza Hub

[Place order](#)

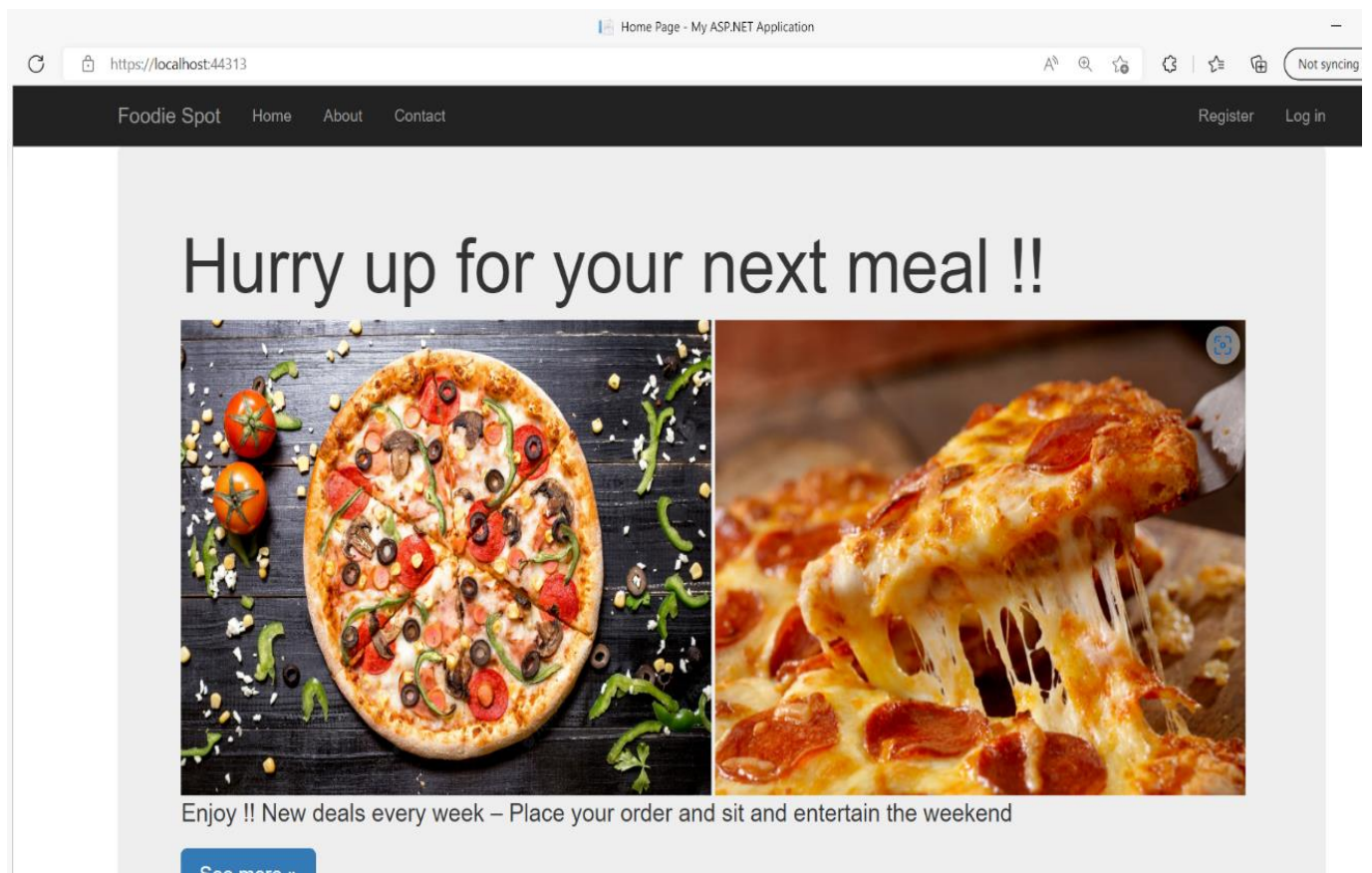
| Order_id | Food_name | Cost |
|----------|-----------|------|
|----------|-----------|------|

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## Log off:




## Redirects to Home Page:




## Jenkins:

**Jenkins**

Search (CTRL+K) ?

 2

 2

SukirthaLakshmanan

log out

Dashboard >

+ New Item

People

Build History

Project Relationship

Check File Fingerprint

Manage Jenkins

My Views

Build Queue

No builds in the queue.

Build Executor Status


1 idle

2 idle


All +


| S | W | Name ↓               | Last Success    | Last Failure    | Last Duration | Coverage |
|---|---|----------------------|-----------------|-----------------|---------------|----------|
| ✓ | ☁ | API project          | 5 days 6 hr #8  | 5 days 8 hr #5  | 18 sec        | ▶ n/a    |
| ✓ | ⚙ | console              | 5 days 6 hr #3  | N/A             | 17 sec        | ▶ n/a    |
| ✓ | ☁ | HelloProject         | 5 days 6 hr #11 | 6 days 5 hr #8  | 17 sec        | ▶ n/a    |
| ✓ | ⚙ | JenkinsProject       | 5 days 6 hr #11 | N/A             | 15 sec        | ▶ n/a    |
| ✓ | 🏠 | MVC                  | 5 days 6 hr #13 | 5 days 8 hr #9  | 17 sec        | ▶ n/a    |
| ✓ | ☁ | MVC check            | 5 days 6 hr #15 | 5 days 8 hr #12 | 17 sec        | ▶ n/a    |
| ✓ | ⚙ | NewProject           | 5 days 6 hr #10 | 5 days 8 hr #5  | 17 sec        | ▶ n/a    |
| ✓ | 🏠 | NewSample            | 5 days 6 hr #5  | 5 days 6 hr #2  | 15 sec        | ▶ n/a    |
| ✓ | ⚙ | WebApplication_pizza | 13 min #4       | N/A             | 5 sec         | ▶ n/a    |

## After Successful Build:

**Jenkins**

Search (CTRL+K) ?

 2

 2

SukirthaLakshmanan

log out

Dashboard > WebApplication\_pizza >

↑ Back to Dashboard

Status

</> Changes

Workspace

▶ Build Now

⚙ Configure

🗑 Delete Project

✎ Rename

Build History

trend ▾

Filter builds...

✓ #4

Oct 26, 2022, 9:48 PM

✓ #3

Oct 26, 2022, 9:47 PM

✓ #2

Oct 26, 2022, 9:43 PM

✓ #1

Oct 26, 2022, 9:38 PM

Atom feed for all

Atom feed for failures

Project WebApplication\_pizza

Jenkins Web Application

Edit description

Disable Project

Permalinks

- Last build (#4), 14 min ago
- Last stable build (#4), 14 min ago
- Last successful build (#4), 14 min ago
- Last completed build (#4), 14 min ago

↑ Back to Dashboard

Status

Changes

Workspace

Build Now

Configure

Delete Project

Rename

## Project WebApplication\_pizza

Jenkins Web Application

[Edit description](#)

Disable Project

### Permalinks

- Last build (#4), 14 min ago
- Last stable build (#4), 14 min ago
- Last successful build (#4), 14 min ago
- Last completed build (#4), 14 min ago

### Build History trend

Filter builds...

- #5  
Oct 26, 2022, 10:02 PM
- #4  
Oct 26, 2022, 9:48 PM
- #3  
Oct 26, 2022, 9:47 PM
- #2  
Oct 26, 2022, 9:43 PM

↑ Back to Dashboard

Status

Changes

Workspace

Build Now

Configure

Delete Project

Rename

## Project WebApplication\_pizza

Jenkins Web Application

[Edit description](#)

Disable Project

### Permalinks

- Last build (#4), 14 min ago
- Last stable build (#4), 14 min ago
- Last successful build (#4), 14 min ago
- Last completed build (#4), 14 min ago

### Build History trend

Filter builds...

- #5  
Oct 26, 2022, 10:02 PM
- #4  
Oct 26, 2022, 9:48 PM
- #3  
Oct 26, 2022, 9:47 PM
- #2  
Oct 26, 2022, 9:43 PM



## Console Output:

Dashboard > WebApplication\_pizza > #5

↑ Back to Project

📄 Status

<> Changes

📋 Console Output

📄 View as plain text

📄 Edit Build Information

🗑 Delete build '#5'

🔗 Git Build Data

← Previous Build



### Console Output

```
Started by user SukirthaLakshmanan
Running as SYSTEM
Building in workspace C:\ProgramData\Jenkins\workspace\WebApplication_pizza
The recommended git tool is: NONE
using credential 6eb43da9-1218-42b0-b3f5-d34a5b28558f
> git.exe rev-parse --resolve-git-dir C:\ProgramData\Jenkins\workspace\WebApplication_pizza\.git # timeout=10
Fetching changes from the remote Git repository
> git.exe config remote.origin.url https://github.com/Sukirthalakshmanan1/JenkinsWebApplication # timeout=10
Fetching upstream changes from https://github.com/Sukirthalakshmanan1/JenkinsWebApplication
> git.exe --version # timeout=10
> git --version # 'git version 2.37.2.windows.2'
using GIT_ASKPASS to set credentials This is my project1
> git.exe fetch --tags --force --progress -- https://github.com/Sukirthalakshmanan1/JenkinsWebApplication +refs/heads/*:refs/remotes/origin/* # timeout=10
> git.exe rev-parse "refs/remotes/origin/master^{commit}" # timeout=10
Checking out Revision fc6eeb177cf27b217a05711c8dee4972d423cebf (refs/remotes/origin/master)
> git.exe config core.sparsecheckout # timeout=10
> git.exe checkout -f fc6eeb177cf27b217a05711c8dee4972d423cebf # timeout=10
Commit message: "Add project files."
> git.exe rev-list --no-walk fc6eeb177cf27b217a05711c8dee4972d423cebf # timeout=10
Path To MSBuild.exe: C:\Program Files\Microsoft Visual Studio\2022\Community\MSBuild\Current\Bin\msbuild.exe
Executing the command cmd.exe /C " chcp 1252 & "C:\Program Files\Microsoft Visual Studio\2022\Community\MSBuild\Current\Bin\msbuild.exe"
C:\ProgramData\Jenkins\workspace\WebApplication_pizza " && exit %ERRORLEVEL%" from
C:\ProgramData\Jenkins\workspace\WebApplication_pizza
```

<https://github.com/Sukirthalakshmanan1/JenkinsWebApplication>

Dashboard > WebApplication\_pizza > #5

```
Done Building Project "C:\ProgramData\Jenkins\workspace\WebApplication_pizza\DAL\DAL.csproj" (default targets).
GenerateTargetFrameworkMonikerAttribute:
Skipping target "GenerateTargetFrameworkMonikerAttribute" because all output files are up-to-date with respect to the input files.
CoreCompile:
Skipping target "CoreCompile" because all output files are up-to-date with respect to the input files.
CopyFilesToOutputDirectory:
  Helper -> C:\ProgramData\Jenkins\workspace\WebApplication_pizza\Helper\bin\Debug\Helper.dll
Done Building Project "C:\ProgramData\Jenkins\workspace\WebApplication_pizza\Helper\Helper.csproj" (default targets).
GenerateTargetFrameworkMonikerAttribute:
Skipping target "GenerateTargetFrameworkMonikerAttribute" because all output files are up-to-date with respect to the input files.
CoreCompile:
Skipping target "CoreCompile" because all output files are up-to-date with respect to the input files.
_CopyAppConfigFile:
Skipping target "_CopyAppConfigFile" because all output files are up-to-date with respect to the input files.
CopyFilesToOutputDirectory:
  JenkinsWebApplication -> C:\ProgramData\Jenkins\workspace\WebApplication_pizza\JenkinsWebApplication\bin\JenkinsWebApplication.dll
Done Building Project "C:\ProgramData\Jenkins\workspace\WebApplication_pizza\JenkinsWebApplication\JenkinsWebApplication.csproj" (default
targets).
Done Building Project "C:\ProgramData\Jenkins\workspace\WebApplication_pizza\JenkinsWebApplication.sln" (default targets).

Build succeeded.
    0 Warning(s)
    0 Error(s)

Time Elapsed 00:00:01.21
Finished: SUCCESS
```

## Build Triggers:

Dashboard > WebApplication\_pizza >

### Configuration

- General
- Source Code Management
- Build Triggers**
- Build Environment
- Build Steps
- Post-build Actions

#### Build Triggers

- ☐ Trigger builds remotely (e.g., from scripts) ?
- ☐ Build after other projects are built ?
- ☒ Build periodically ?

Schedule ?

H/3 \* \* \* \*

Would last have run at Wednesday, October 26, 2022 at 9:44:05 PM India Standard Time; would next run at Wednesday, October 26, 2022 at 10:14:05 PM India Standard Time.

- ☐ GitHub hook trigger for GITSCm polling ?
- ☐ Poll SCM ?

#### Build Environment

- ☐ Delete workspace before build starts

Save

Apply

## Workspace:

Dashboard > WebApplication\_pizza >

↑ Back to Dashboard

☰ Status

</> Changes

**📁 Workspace**

🗑️ Wipe Out Current Workspace

▶ Build Now

⚙️ Configure

🗑️ Delete Project

✎ Rename

**Build History** trend ▾

🔍 Filter builds...

✔ #5  
Oct 26, 2022, 10:02 PM

✔ #4  
Oct 26, 2022, 9:48 PM

✔ #3  
Oct 26, 2022, 9:47 PM

### Workspace of WebApplication\_pizza on Built-In Node

WebApplication\_pizza /  →

📁 .git

📁 BAL

📁 DAL

📁 Helper

📁 JenkinsWebApplication

📁 packages

📄 .gitattributes Oct 26, 2022, 9:39:06 PM 2.52 KB 🔒 👁

📄 .gitignore Oct 26, 2022, 9:39:06 PM 6.43 KB 🔒 👁

📄 JenkinsWebApplication.sln Oct 26, 2022, 9:39:06 PM 2.51 KB 🔒 👁

[📄 \(all files in zip\)](#)

## Automatic Build:

The screenshot shows the Jenkins Project Dashboard for 'WebApplication\_pizza'. The breadcrumb trail is 'Dashboard > WebApplication\_pizza >'. The left sidebar contains navigation links: 'Back to Dashboard', 'Status' (selected), 'Changes', 'Workspace', 'Build Now', 'Configure', 'Delete Project', and 'Rename'. The main content area is titled 'Project WebApplication\_pizza' and includes the subtitle 'Jenkins Web Application'. On the right, there are links for 'Edit description' and a 'Disable Project' button. Below the project title, the 'Permalinks' section lists: 'Last build (#6), 14 sec ago', 'Last stable build (#6), 14 sec ago', 'Last successful build (#6), 14 sec ago', and 'Last completed build (#6), 14 sec ago'. The 'Build History' section, with a 'trend' dropdown, includes a search bar 'Filter builds...' and a list of builds: #6 (Oct 26, 2022, 10:05 PM), #5 (Oct 26, 2022, 10:02 PM), #4 (Oct 26, 2022, 9:48 PM), #3 (Oct 26, 2022, 9:47 PM), #2 (Oct 26, 2022, 9:43 PM), and #1 (Oct 26, 2022, 9:38 PM). All builds are marked with a green checkmark icon.

## Conclusion:

Thus the web application is created successfully and deployed it via Jenkins.