how to install RabbitMQ on windows 10

1. go to rabbitmq official website [https://www.rabbitmq.com/](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbEFmbzdLWHlfSDhhS0MwX3VzcGszVGZQV0kyQXxBQ3Jtc0tueTZhRG8zM0U5UU8zSWZCOEg2MUQxY3lqMlVUWnp6YzlhT05iM1NrUVJCQzNSVE4xUXN0SXIxcUJQZlBMQk1URXlxQmpsTWVSZFN4MDE1TmROQnJZU2tqQ3B4Y2JtSzYzakszRk5nQ1BfbkotNXJiaw&q=https%3A%2F%2Fwww.rabbitmq.com%2F&v=V9DWKbalbWQ" \t "_blank)

2. Click on "Get Started" menu

3. then click on "Download + installation"

4. then click on windows installer recommended

5. then download erlang 64 bit

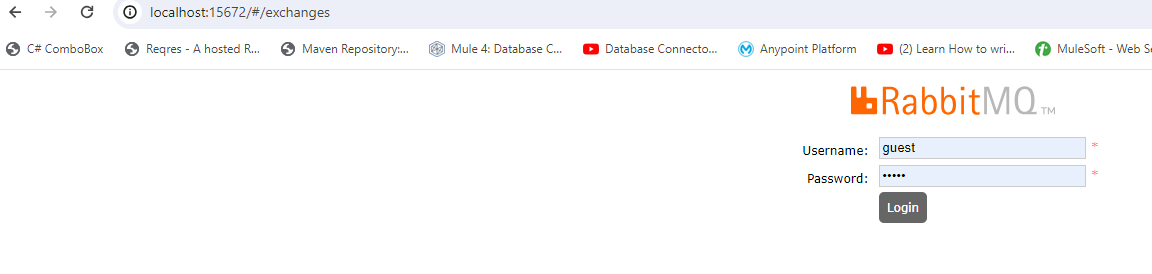
6. then download the rabbitmq .exe file

7. First install erlang

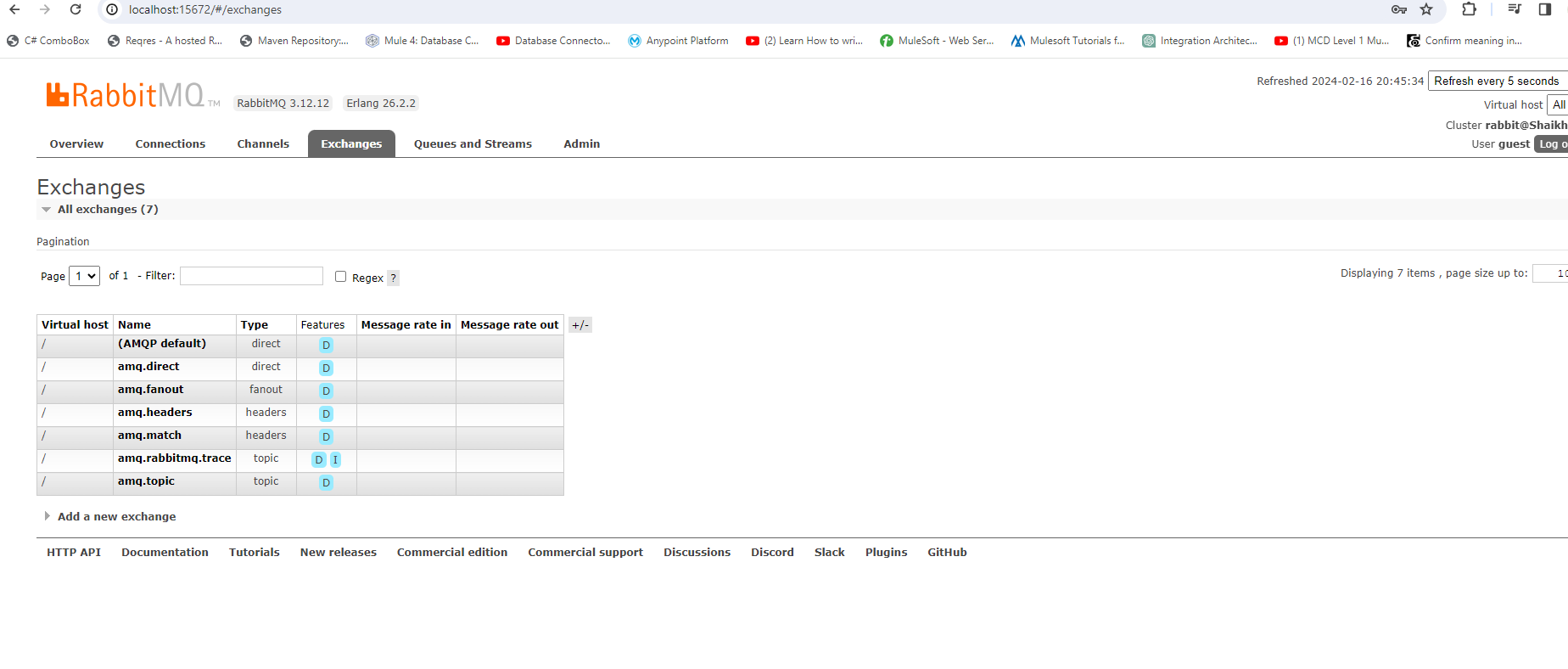
8. then install rabbitmq

9. then go to start menu and search for rabbitmq command prompt

10. type command "rabbitmq-plugins enable rabbitmq\_management"

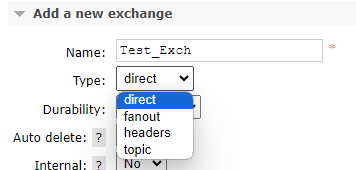
After installation just go to your any browser and type “localhost:15672” and login page will display or RBMQ Dashboard will display. 

After login the below page will be display.

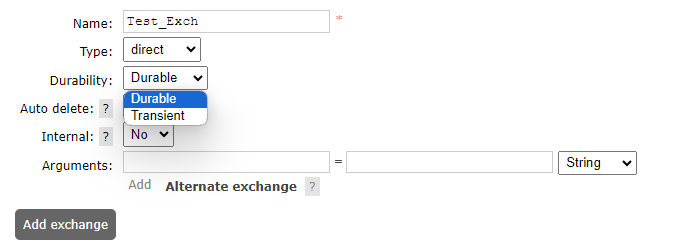


How to Create Exchange just follow the step as follows.

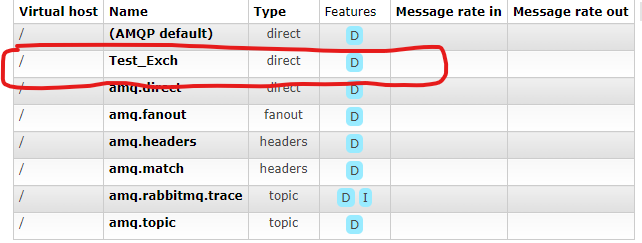
1. Enter name which should be unique.
2. After select type (there are 4 types of type such as direct, fanout, headers, topic. Most of the cases we select only two types such as direct or fanout.currecntly keep as direct type.



1. After select Durability and there are two types of durability such as durable transient. Keep as durable. Because whenever any things would happen on the server message will go.

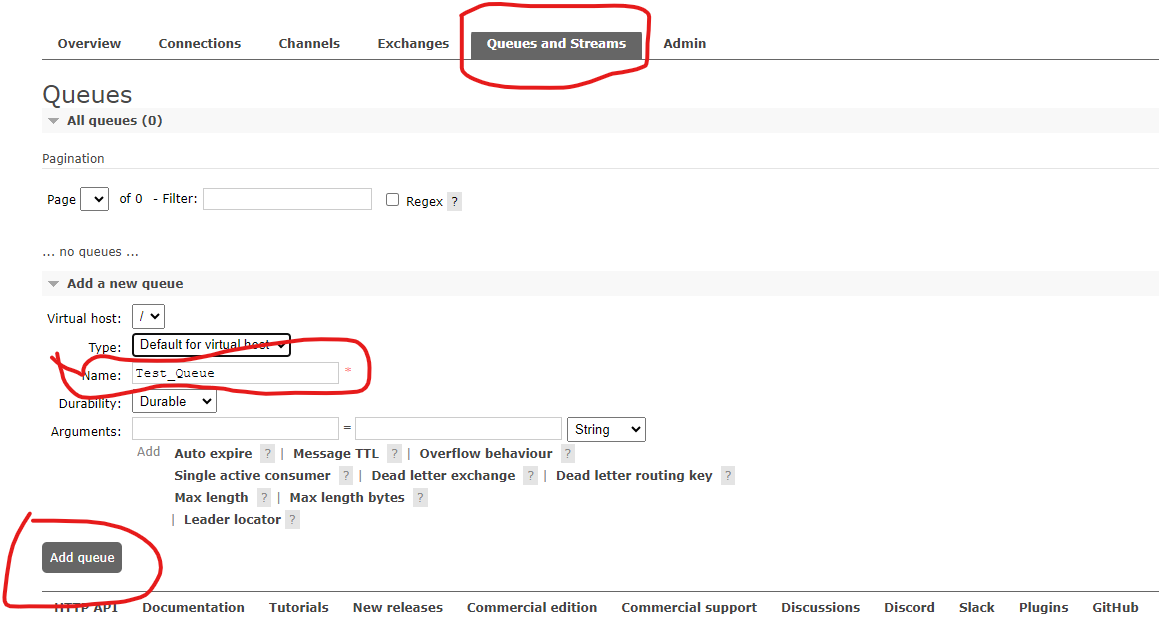


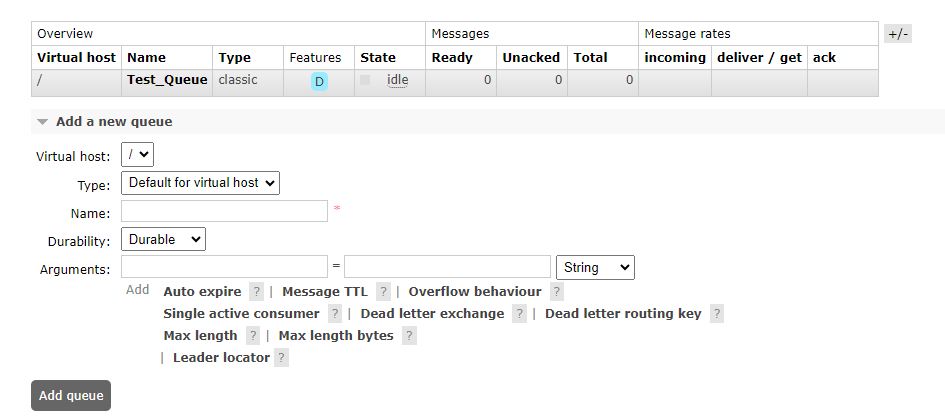
1. Remaining keep as it is and click add exchange and your exchange is created like below.



How to create Queue

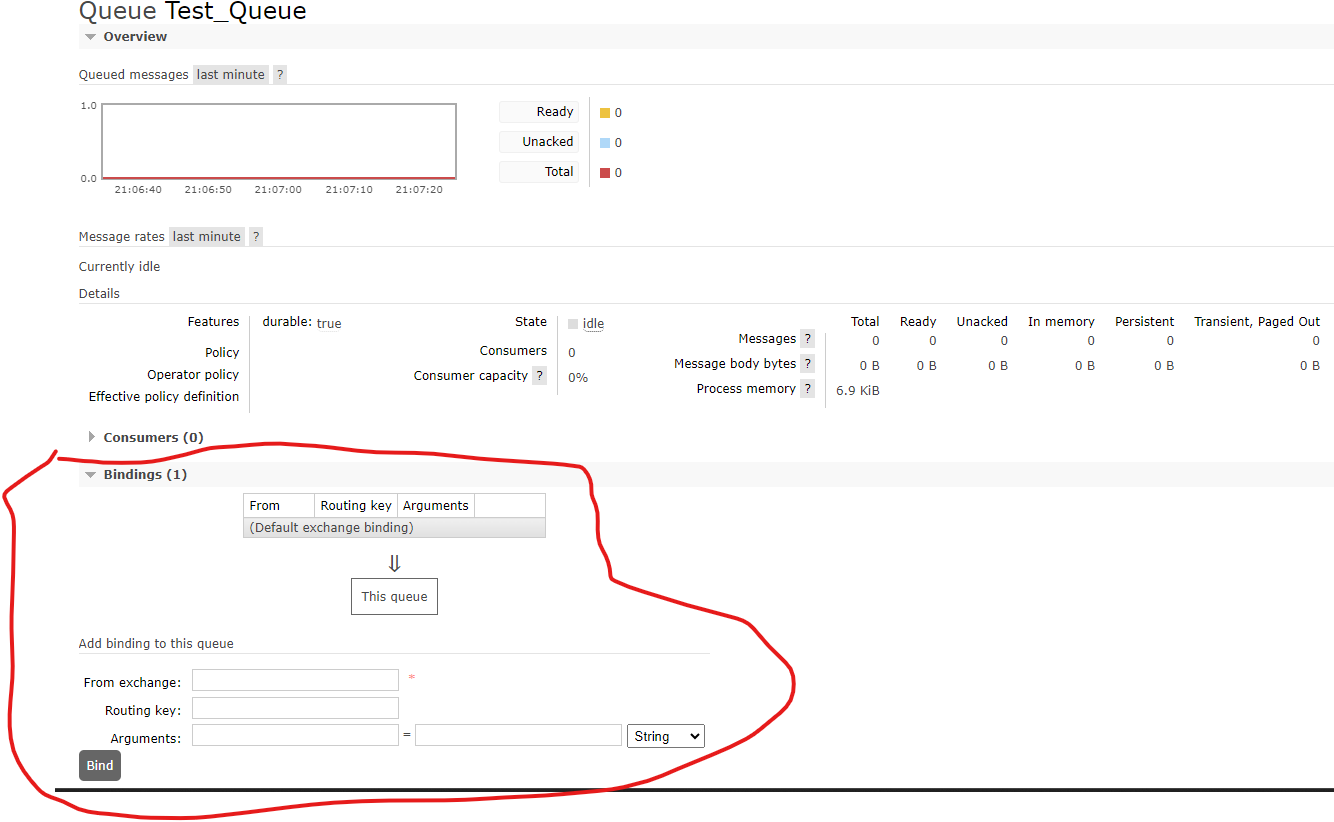
1. Just go to queues and Streams tab and click it. after enter some unique name and remaining keep as it is and click Add queue.Now,your queue is created however you have to bind the exchange when you created first to this queue.



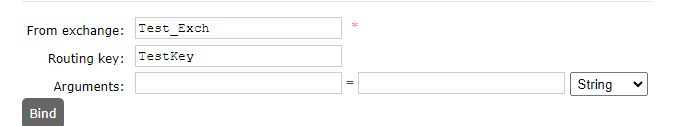


How to Bind the queue with Exchange.

1. Just go your created queue and click on it and click on the bind menu as you can on below screen snap as follow.



1. Add the exchange name which you want to bind with queue as below.



1. Routing key is optional either you can use or not.

Now you are ready to publish/consume a message with newly created exchange and Queue.

Note: whenever you create a exchange with Direct.SO you should add routing kay and use on your application.

//This is the code when you create exchange with the type default

channel.BasicPublish(exchange""",routingKey:"queueName",

basicProperties:null,body:"this is a test a message which will publish to the queue");

//This is the code when you create exchange with the type Direct

channel.BasicPublish(exchange""Test\_exch",routingKey:" TestKey",

basicProperties:null,body:"this is a test a message which will publish to the queue");

How to create Fanout Type exchange and use case.

Let’s assume Amazon/Noon Case. Whenever you order something on those e-commerce site. Once you place a order that order is going to multiple place like Inventory dept., Admin Dept., Delivery Dept. etc.

1. Same exchange with Multiple Queue.
2. AmzInventory\_Queue
3. AmzAdmin\_Queue

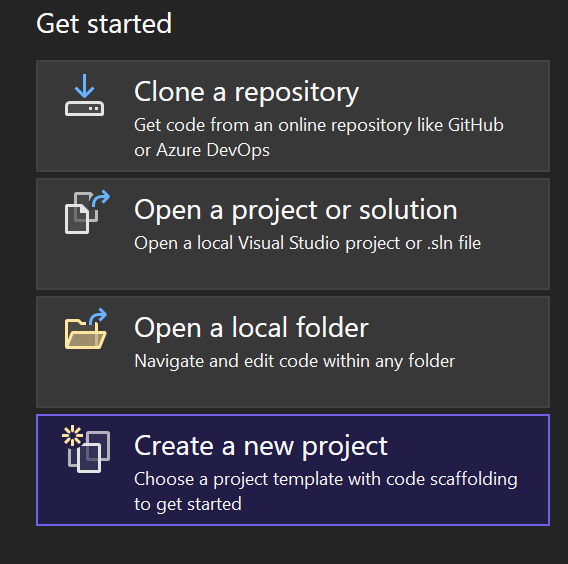
//This is the code to use fanout exchange and it will be use while publish a message

channel.BasicPublish(exchange""AmzFanout\_Exch",routingKey:" ",

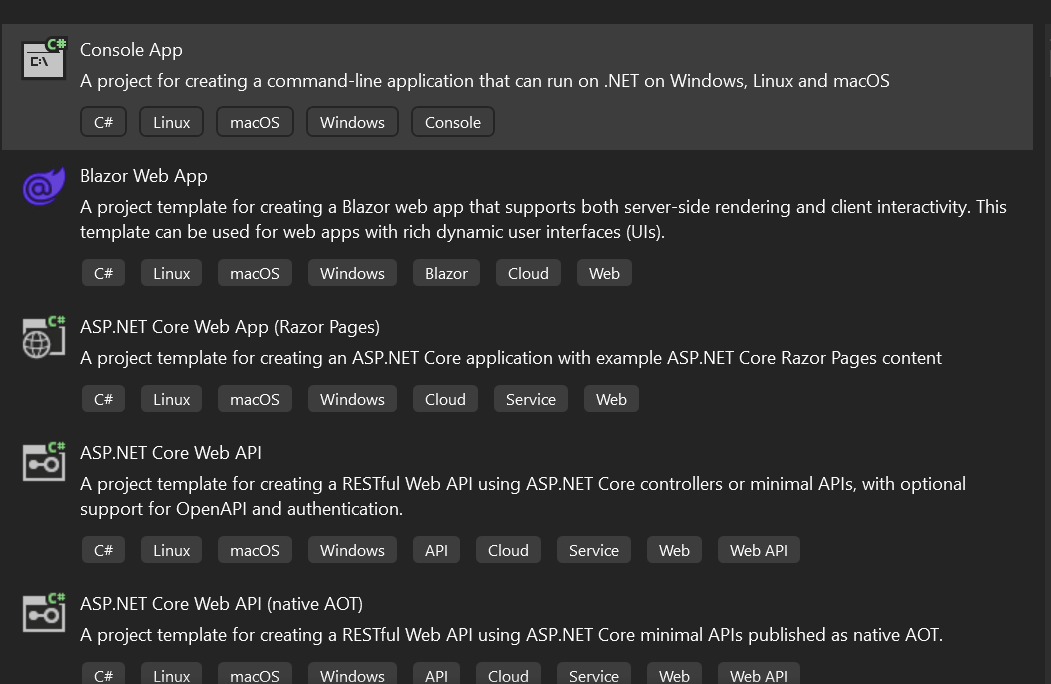
basicProperties:null,body:"this is a test a message which will publish to the queue");

**How to publish a message from Application**.

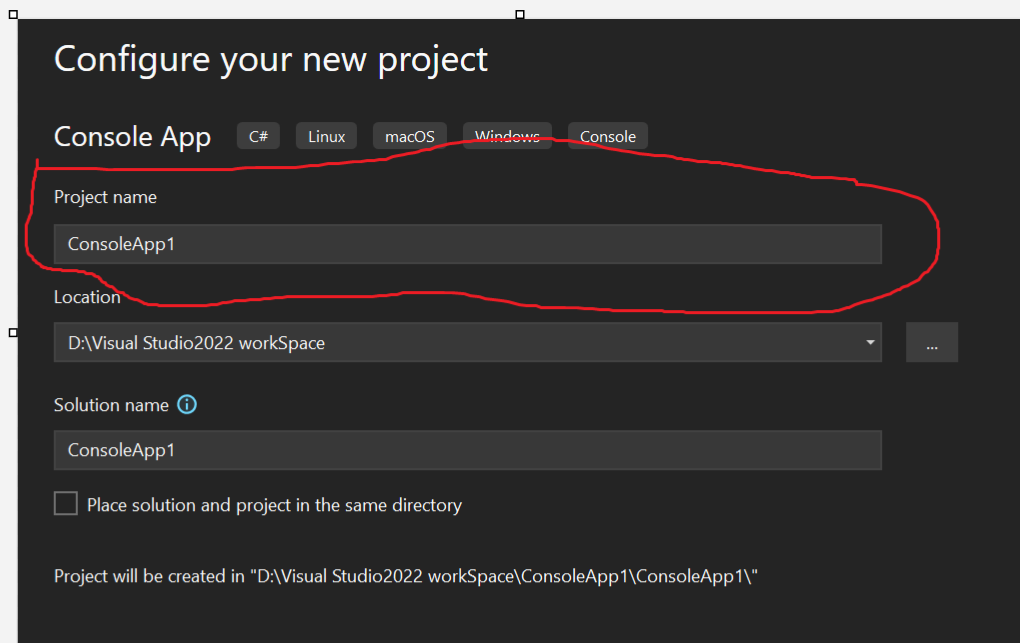
1. Create a sample console application on visual studio 2022 version
2. Open visual Studio 2022
3. Create a new Project



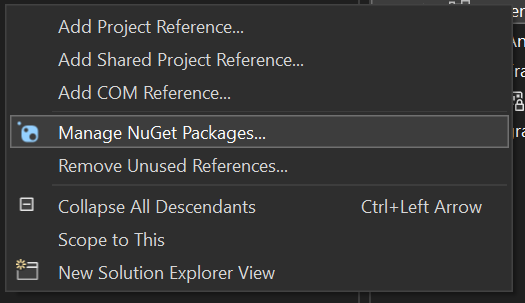
1. Choose console app



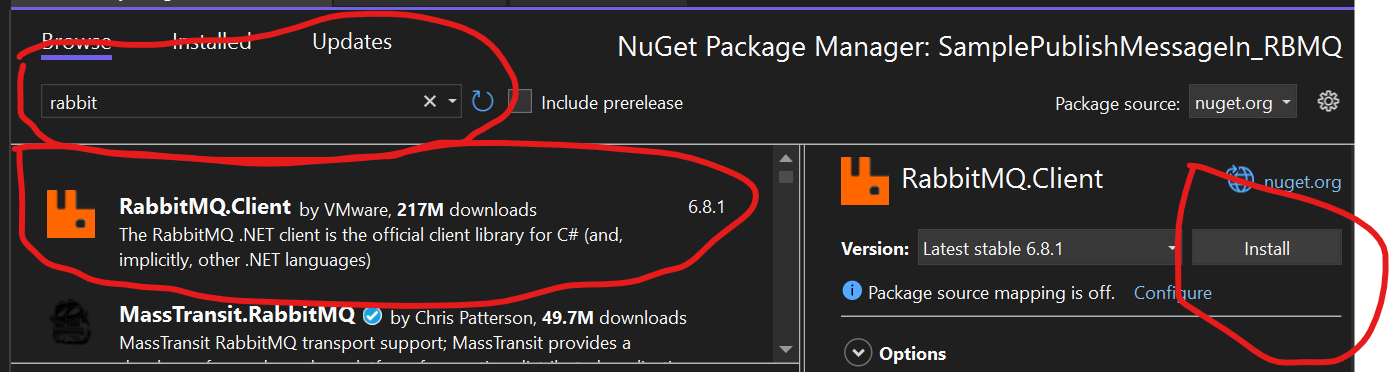
1. Next
2. Give some meaningful Name for project.



1. After created a project just right click on Dependencies then click Manage Nuget Packages to RabbitMQ client.



1. When Nuget package manager will open just click on Browse tab and type RabbitMQ.The first package will be show and just click on that right side will show install. Click on install to add this dependencies package.Once you will click this dependencies will add on your project.



1. **Below is the code to publish a simple message to the RBMQ.**

// See https://aka.ms/new-console-template for more information

using RabbitMQ.Client;

using System.Runtime.CompilerServices;

using System.Text;

Console.WriteLine("Publisher App Started");

var factory = new ConnectionFactory()

{

HostName = "localhost", // in our case we have to use localhost

//In organization you have use IP Address.

// in our case we have to use empty

//In organization you have use environment

//like test or production. Your infra

//team should be providing it or you should ask to them.

};

var connection = factory.CreateConnection();

var channel = connection.CreateModel();

string message = "This is the message to send to the RBMQ";

var bodyMessage = Encoding.UTF8.GetBytes(message);

channel.BasicPublish(exchange: "",routingKey:"Test\_Queue",basicProperties: null, body: bodyMessage);

// in our case we have created direct type of exchnage.

//This is queue name. Keep in mind when you want to publish

//a message with direct exchange then routingKey is very important.

//before sending a meessage to the RBMQ.

//remmeber you have send with encoding, because RBMQ is written errlang language/code.

Console.WriteLine("Message has been sent successfully to the RBMQ");

Console.ReadLine();

**Publish multiple message at the same time.**

// See https://aka.ms/new-console-template for more information

using RabbitMQ.Client;

using System.Runtime.CompilerServices;

using System.Text;

Console.WriteLine("Console App Started");

var factory = new ConnectionFactory()

{

HostName = "localhost",

// in our case we have to use localh,ost

//In organisation you have use IP Address.

// in our case we have to use empty

//In organisation you have use enviornment

//like test or prodcution.Your infra

//team should be provide it or you should ask to them .

};

var connection = factory.CreateConnection();

var channel = connection.CreateModel();

string message = "This is the message to send to the RBMQ";

for (int i = 1; i < 1000; i++)

{

var bodyMessage = Encoding.UTF8.GetBytes(message);

channel.BasicPublish(exchange: "", routingKey: "Test\_Queue", basicProperties: null, body: bodyMessage);

// in our case we have created direct type of excdhnage.

//This is queue name.Keep in mind when you want publish

//a message with direct exchange then routingKey is very important.

//before sending a meessage to the RBMQ//remmeber you have send with encoding ,becuase RBMQ is written errlang language/code.

}

Console.WriteLine("Message has been sent successfully to the RBMQ");

Console.ReadLine();

**How to consume a message from RBMQ**

1. Create new solution or same solution

Add RabbitMQ.client package from Nuget

using RabbitMQ.Client;

using RabbitMQ.Client.Events;

using System.Text;

Console.WriteLine("This is Consumer App!");

var factory = new ConnectionFactory()

{

HostName = "localhost", // in our case we have to use localhost

//In organisation you have use IP Address.

// in our case we have to use empty

//In organisation you have use enviornment

//like test or prodcution.Your infra

//team should be provide it or you should ask to them .

};

var connection = factory.CreateConnection();

var channel = connection.CreateModel();

var consumer = new EventingBasicConsumer(channel);

consumer.Received += (m, args) =>

{

var body = args.Body.ToArray();

var message = Encoding.UTF8.GetString(body);

};

channel.BasicConsume(queue: "Test\_Queue", autoAck: true, consumer);

Console.WriteLine("All Message has been consumed");

Console.ReadLine();