Lab for Module 7 Developing and Collaborting in Visual Studio Code

Using Visual Studio Code to Branch, Edit and Commit, Fetch/Pull/Push and create Pull Requests

Hands on Lab

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#Overview In this lab you will continue with the repositories you created in the previous labs. But, now you will do this all in the Visual Studio IDE.

Prerequisites

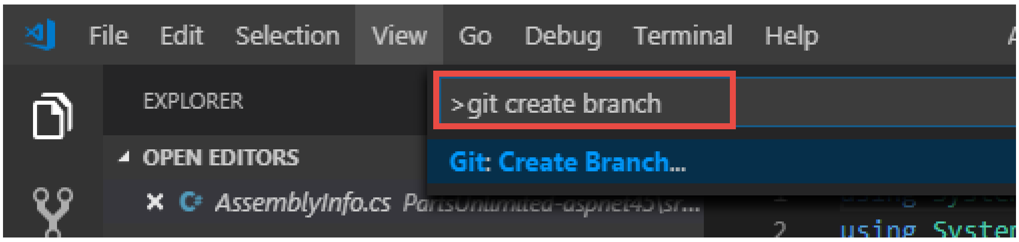
1. Module 5 Branching and Merging
2. Install the Azure Repos Extension

Exercise 1: Managing Branches in Visual Studio

You can manage the work in your local and remote Git repo from the **Branches** title/view in Team Explorer.

Task 1: Creating a new branch in your local repository

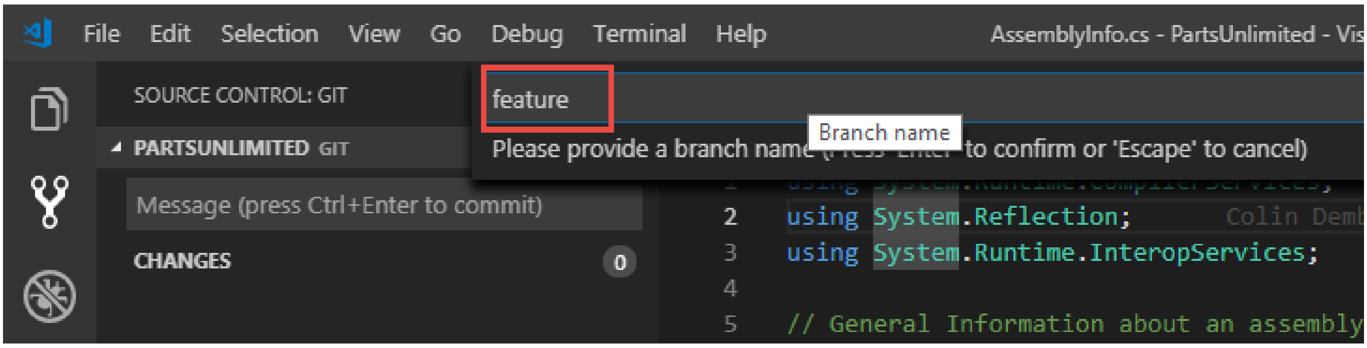
1. From the **Command Palette** type **git create branch** and click on it



>git create branch

Git: Create Branch...

2. Type **feature** as the branch name press 'Enter'.



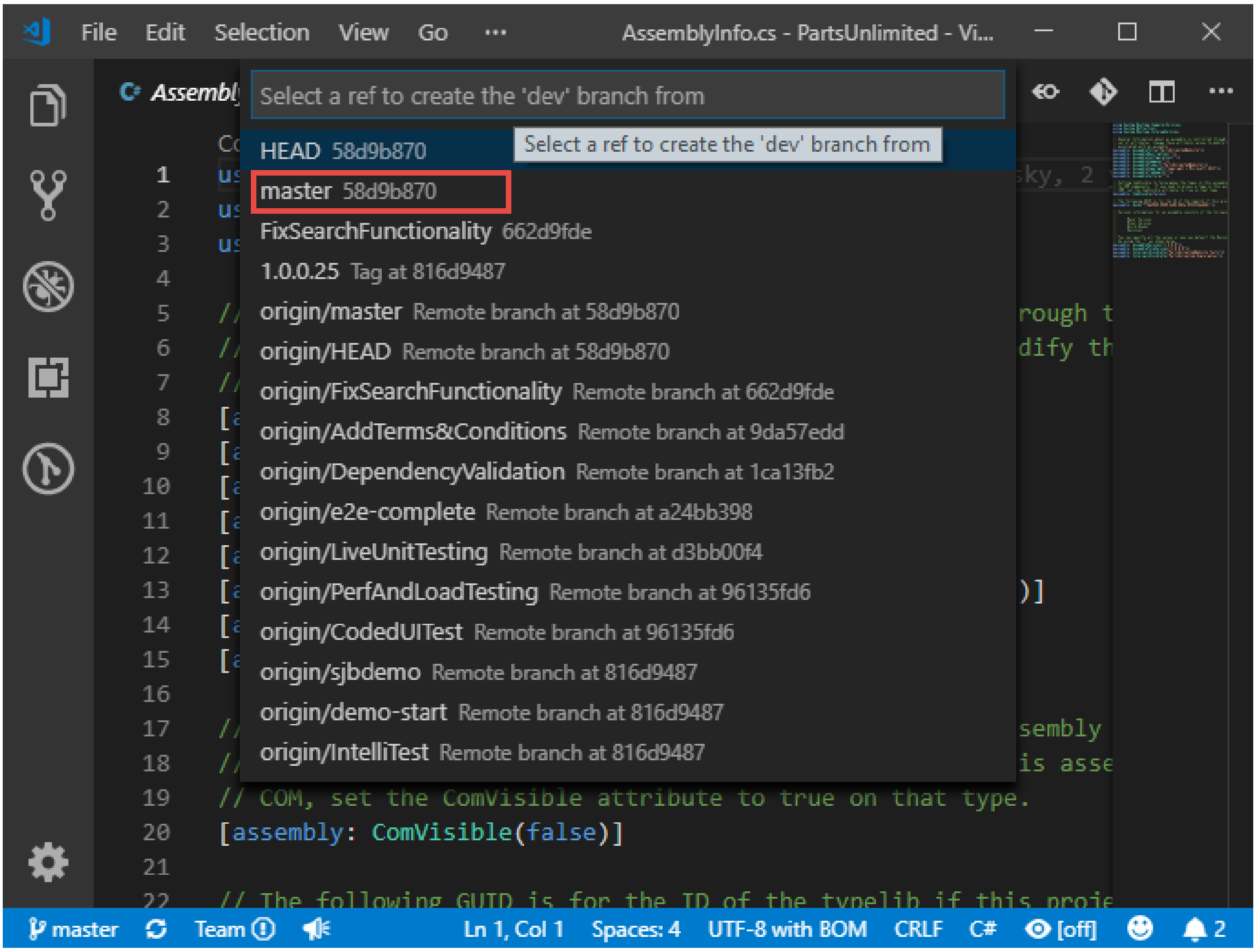
feature

Please provide a branch name (Press 'Enter' to confirm or 'Escape' to cancel)

```
using System.Reflection;
using System.Runtime.InteropServices;

// General Information about an assembly
```

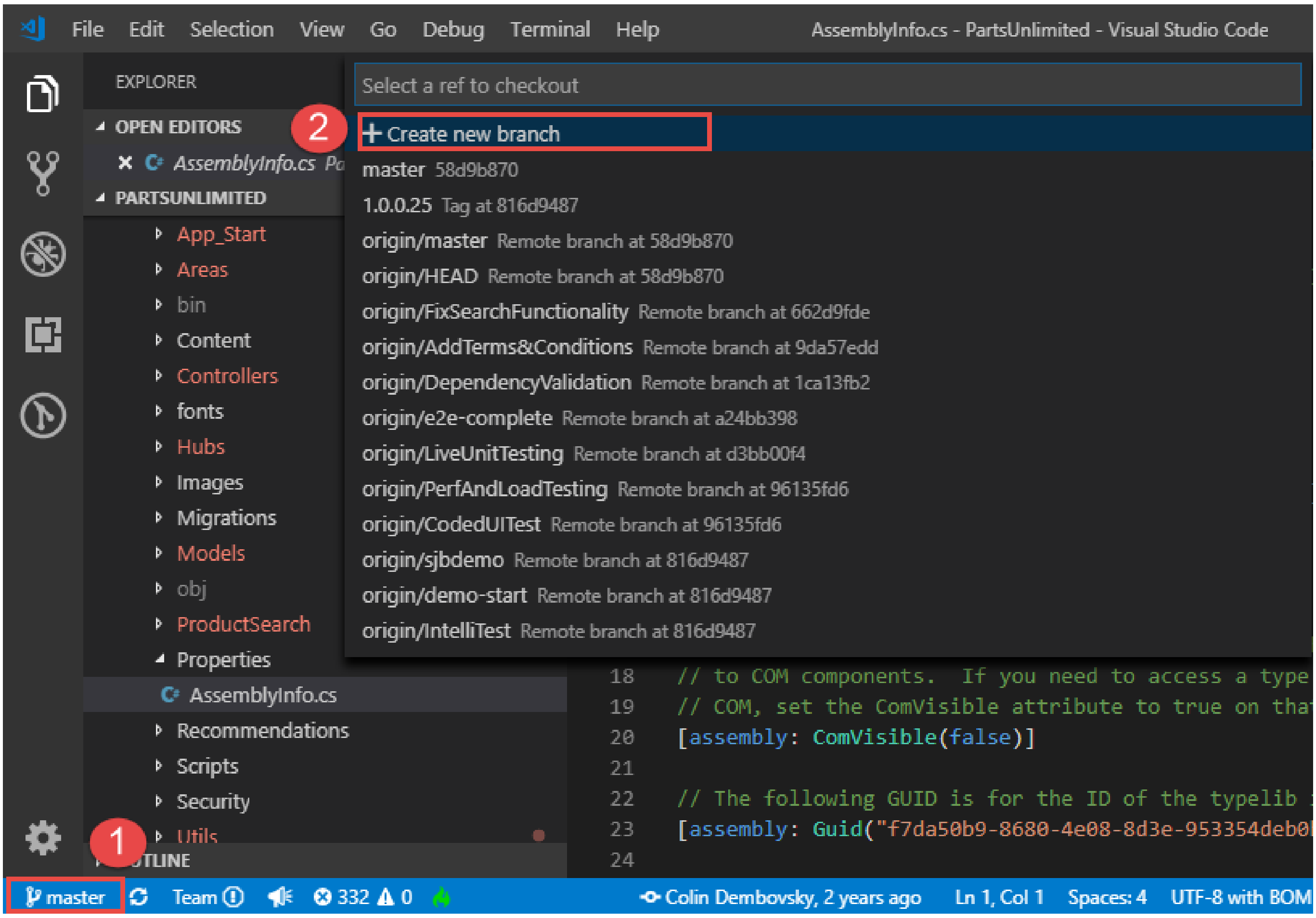
3. Select **“master”** as the ref to branch from.


File Edit Selection View Go ···
AssemblyInfo.cs - PartsUnlimited - Vi...
Select a ref to create the 'dev' branch from
HEAD 58d9b870
master 58d9b870
FixSearchFunctionality 662d9fde
1.0.0.25 Tag at 816d9487
origin/master Remote branch at 58d9b870
origin/HEAD Remote branch at 58d9b870
origin/FixSearchFunctionality Remote branch at 662d9fde
origin/AddTerms&Conditions Remote branch at 9da57edd
origin/DependencyValidation Remote branch at 1ca13fb2
origin/e2e-complete Remote branch at a24bb398
origin/LiveUnitTesting Remote branch at d3bb00f4
origin/PerfAndLoadTesting Remote branch at 96135fd6
origin/CodedUITest Remote branch at 96135fd6
origin/sjbdemo Remote branch at 816d9487
origin/demo-start Remote branch at 816d9487
origin/IntelliTest Remote branch at 816d9487
master Team Ln 1, Col 1 Spaces: 4 UTF-8 with BOM CRLF C# [off] 2

```
// COM, set the ComVisible attribute to true on that type.
[assembly: ComVisible(false)]

// The following GUID is for the ID of the typelib if this proje
```

4. Note that you can always see what branch you’re working on in the bottom left corner of Visual Studio Code. You can also easily switch between branches and create new ones.



Select a ref to checkout

+ Create new branch
master 58d9b870
1.0.0.25 Tag at 816d9487
origin/master Remote branch at 58d9b870
origin/HEAD Remote branch at 58d9b870
origin/FixSearchFunctionality Remote branch at 662d9fde
origin/AddTerms&Conditions Remote branch at 9da57edd
origin/DependencyValidation Remote branch at 1ca13fb2
origin/e2e-complete Remote branch at a24bb398
origin/LiveUnitTesting Remote branch at d3bb00f4
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origin/CodedUITest Remote branch at 96135fd6
origin/sjbdemo Remote branch at 816d9487
origin/demo-start Remote branch at 816d9487
origin/IntelliTest Remote branch at 816d9487

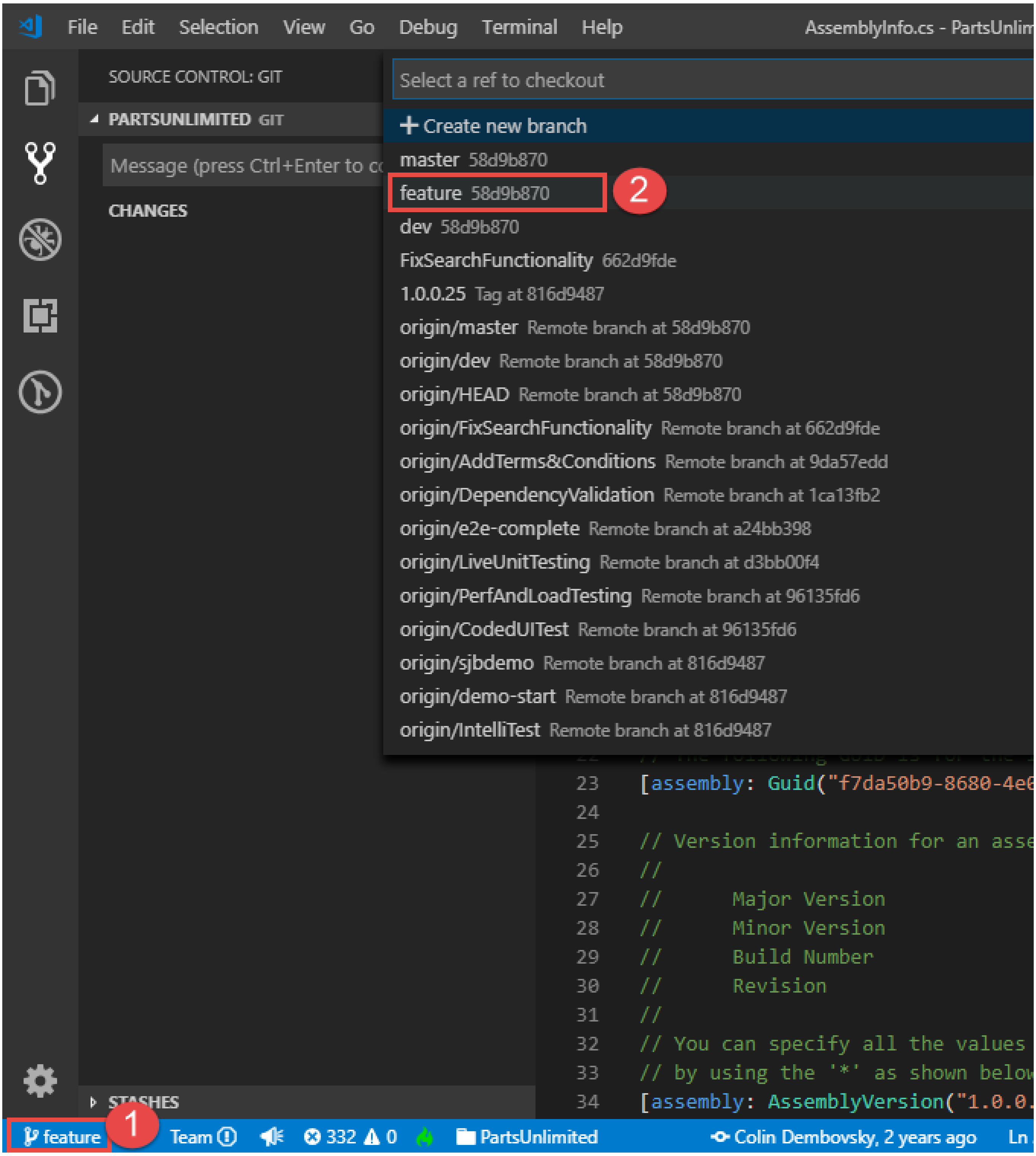
```
// to COM components.  If you need to access a type
// COM, set the ComVisible attribute to true on tha
[assembly: ComVisible(false)]

// The following GUID is for the ID of the typelib
[assembly: Guid("f7da50b9-8680-4e08-8d3e-953354deb0
```

Task 2: Checking out and publishing branches

Git keeps track of which branch you are working on and makes sure that when you checkout a branch your files match the most recent commit on the branch. Branches let you work with multiple versions of the source code in the same local Git repository at the same time.

1. From the branch area of **Status Bar**, click on the **branches** select the just created **feature** branch to check it out.


File Edit Selection View Go Debug Terminal Help
AssemblyInfo.cs - PartsUnlim
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Select a ref to checkout
+ Create new branch
master 58d9b870
feature 58d9b870
2
dev 58d9b870
FixSearchFunctionality 662d9fde
1.0.0.25 Tag at 816d9487
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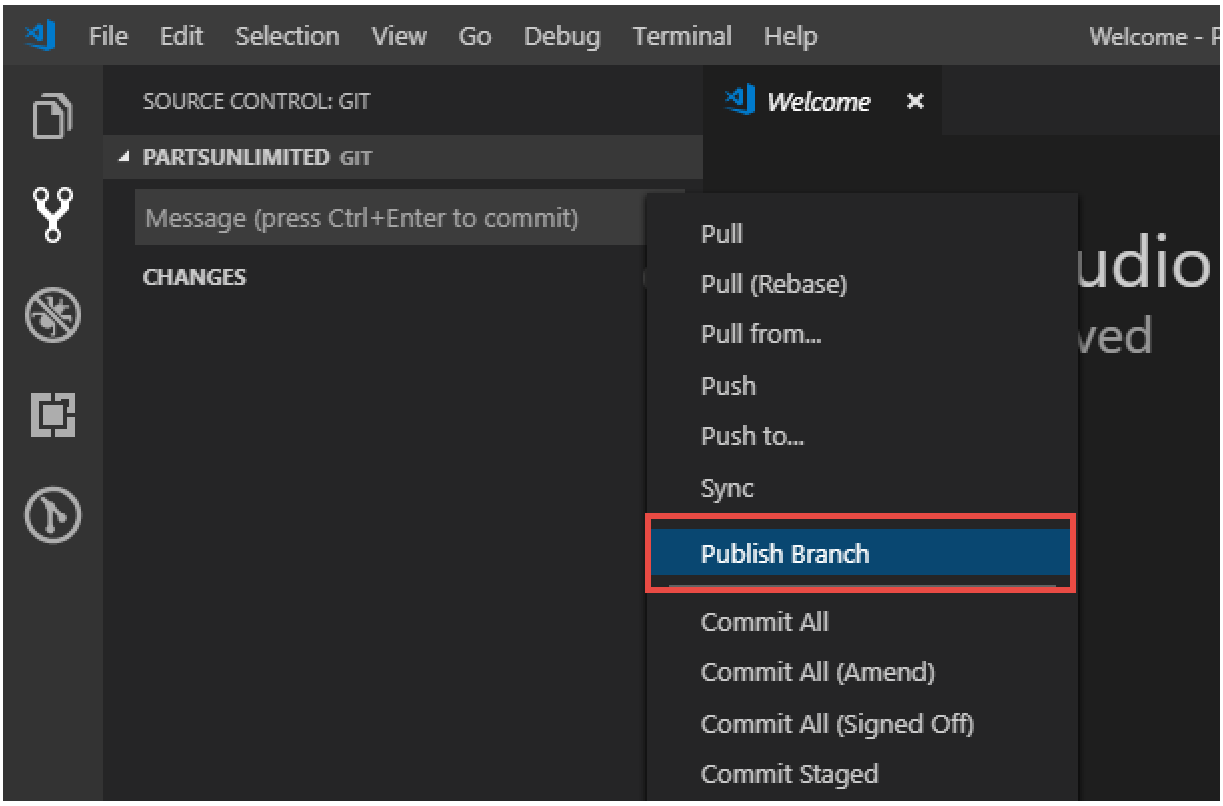
origin/CodedUITest Remote branch at 96135fd6
origin/sjbdemo Remote branch at 816d9487
origin/demo-start Remote branch at 816d9487
origin/IntelliTest Remote branch at 816d9487
feature
1
Team
332 0
PartsUnlimited
Colin Dembovsky, 2 years ago
Ln

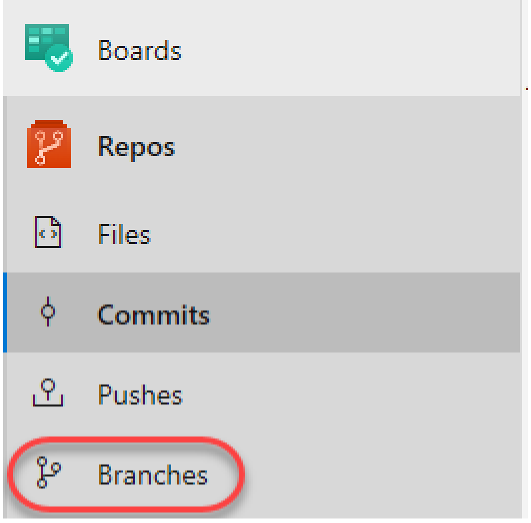
```
[assembly: Guid("f7da50b9-8680-4e6

// Version information for an asse
//
//      Major Version
//      Minor Version
//      Build Number
//      Revision
//
// You can specify all the values
// by using the '*' as shown below
[assembly: AssemblyVersion("1.0.0.
```

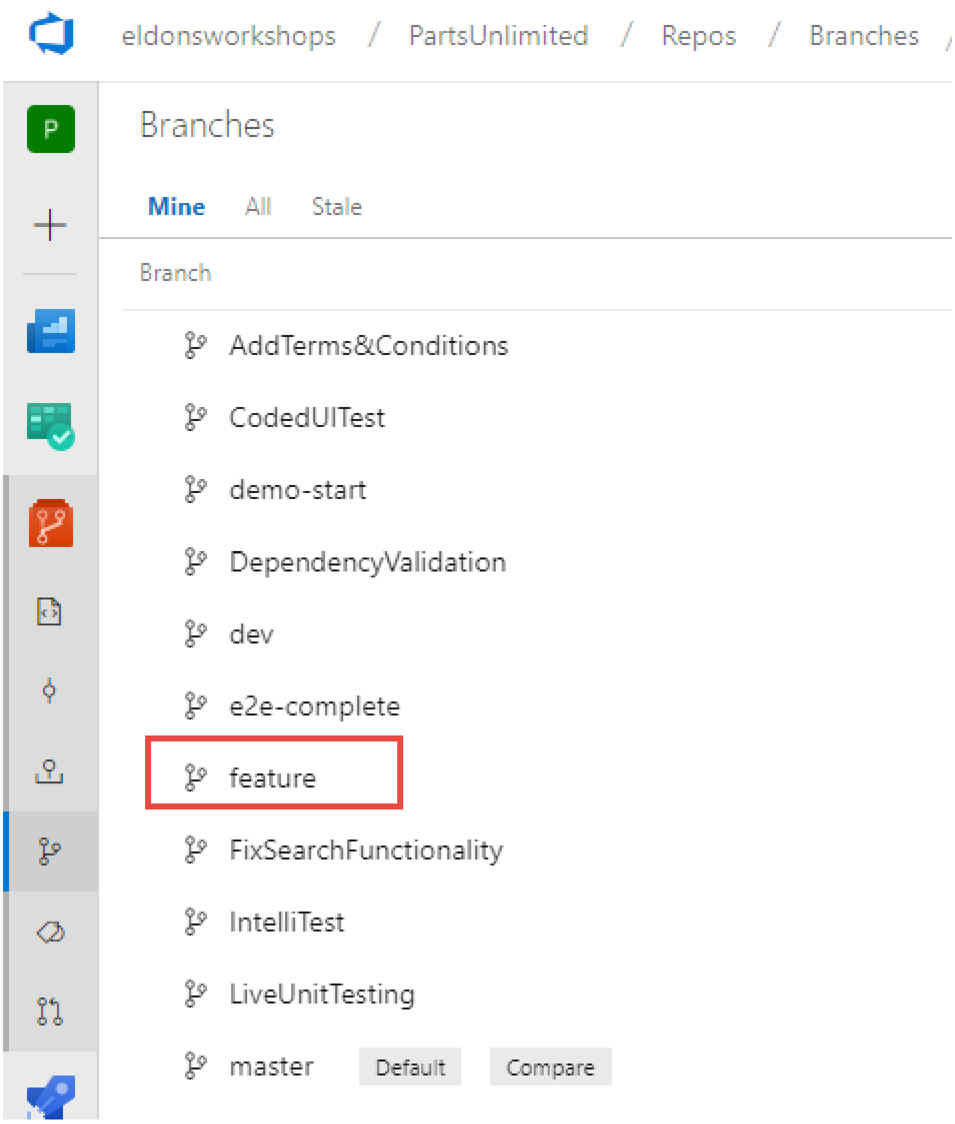
2. From the **source control area** select **Publish Branch**. This will share it with the server



4. On Azure DevOps, switch to the **Branches** tab.



5. You should see the newly pushed **feature** branch



eldonsworkshops / PartsUnlimited / Repos / Branches /

Branches

Mine All Stale

Branch

AddTerms&Conditions

CodedUITest

demo-start

DependencyValidation

dev

e2e-complete

feature

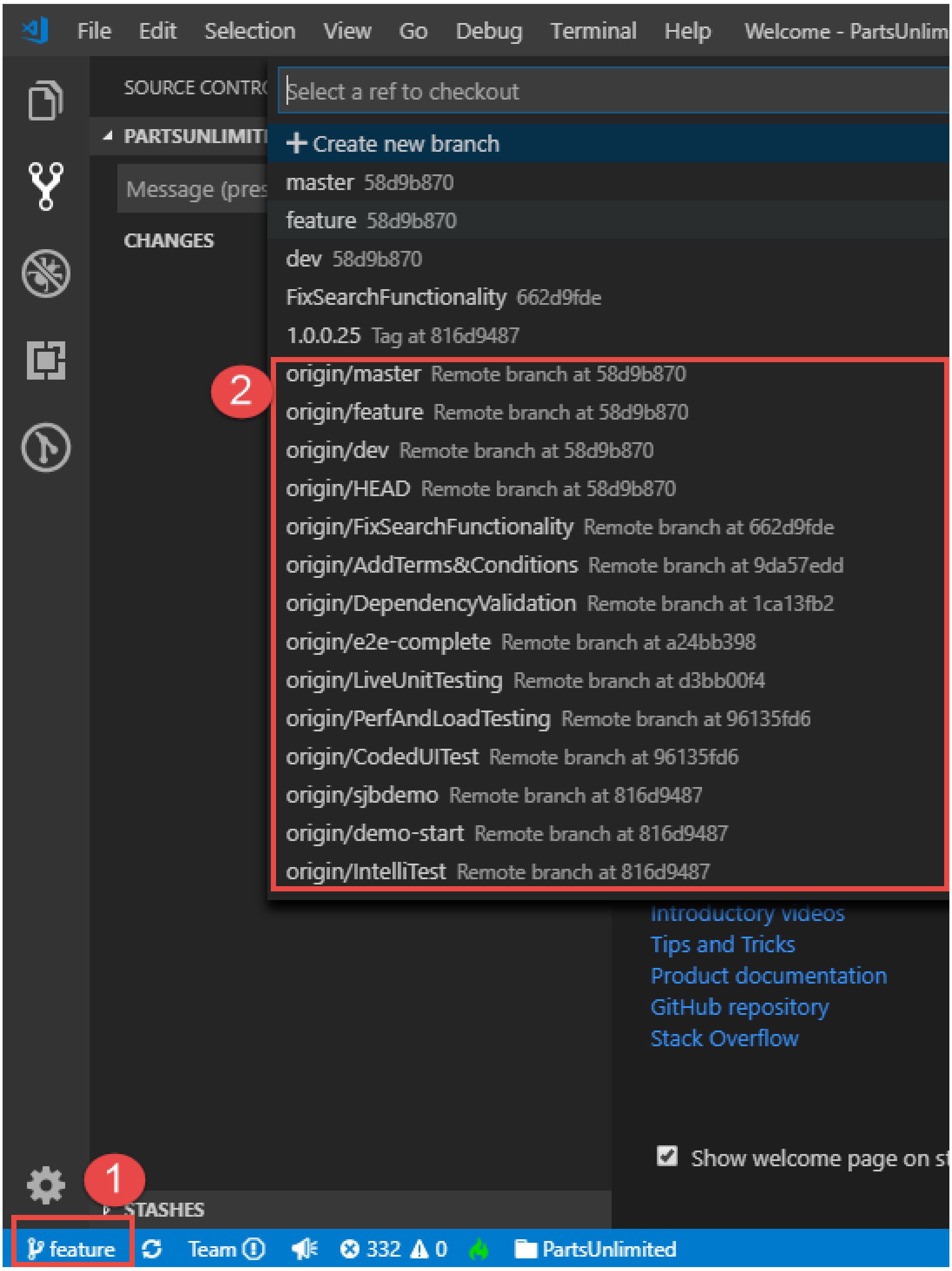
FixSearchFunctionality

IntelliTest

LiveUnitTesting

master Default Compare

6. Back in **Visual Studio Code**, Click on the **branches icon** in the status bar. Here you can see all of the remote branches, including those that haven't been pulled down locally.



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CHANGES
Select a ref to checkout
+ Create new branch
master 58d9b870
feature 58d9b870
dev 58d9b870
FixSearchFunctionality 662d9fde
1.0.0.25 Tag at 816d9487
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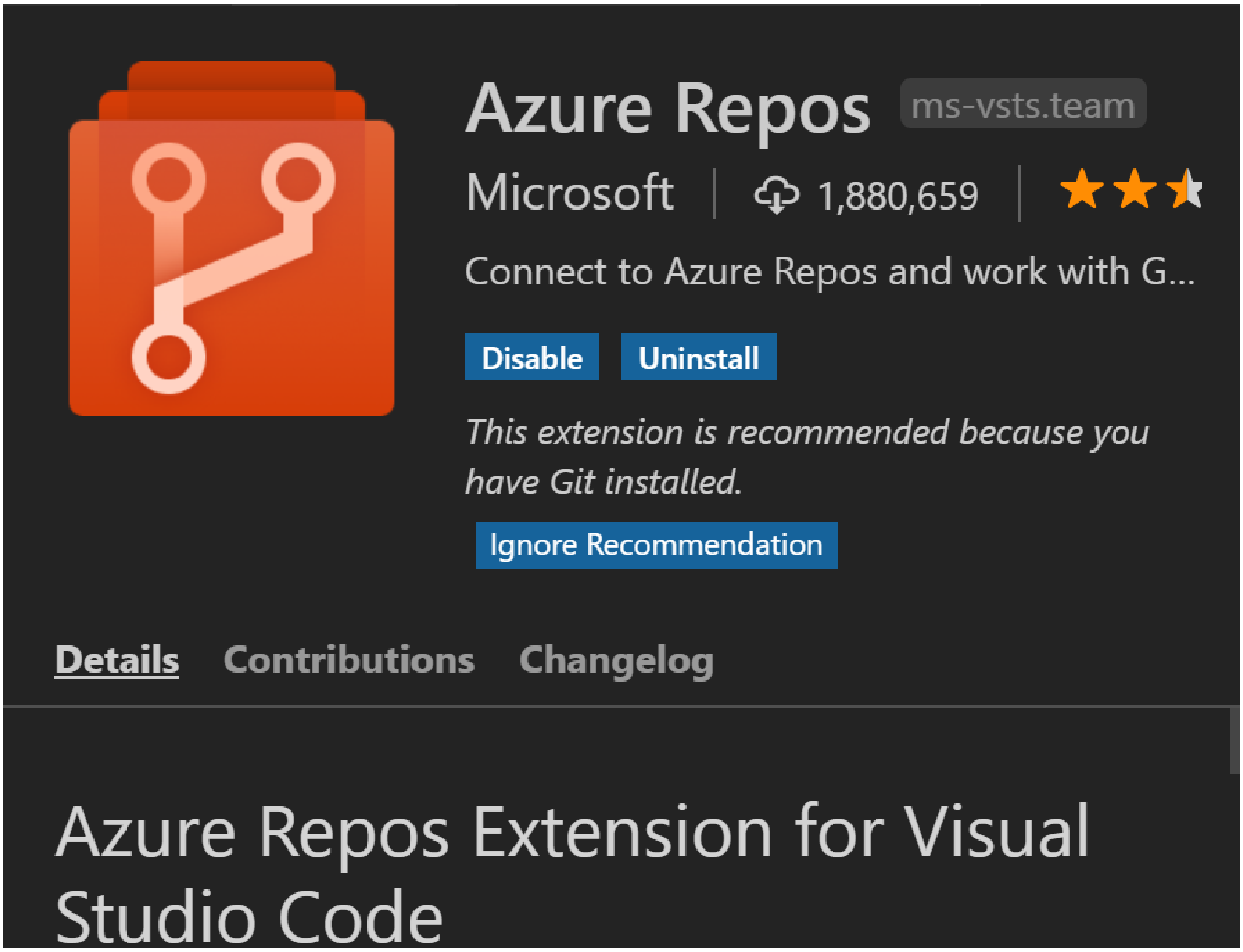
origin/demo-start Remote branch at 816d9487
origin/IntelliTest Remote branch at 816d9487
2
Introductory videos
Tips and Tricks
Product documentation
GitHub repository
Stack Overflow
☑ Show welcome page on st
1
STASHES
feature
Team
332 0
PartsUnlimited

Exercise 2: Creating a Pull Request.

You can create a pull request from Visual Studio Code or in Azure Repos. In this exercise you will use Visual Studio Code. In the previous exercise you pushed your local **feature** branch to Azure Repos.

Task 1: Install the Azure Repos Extension

1. Download and install from the Marketplace



Azure Repos ms-vsts.team

Microsoft | 1,880,659 | ★★★½

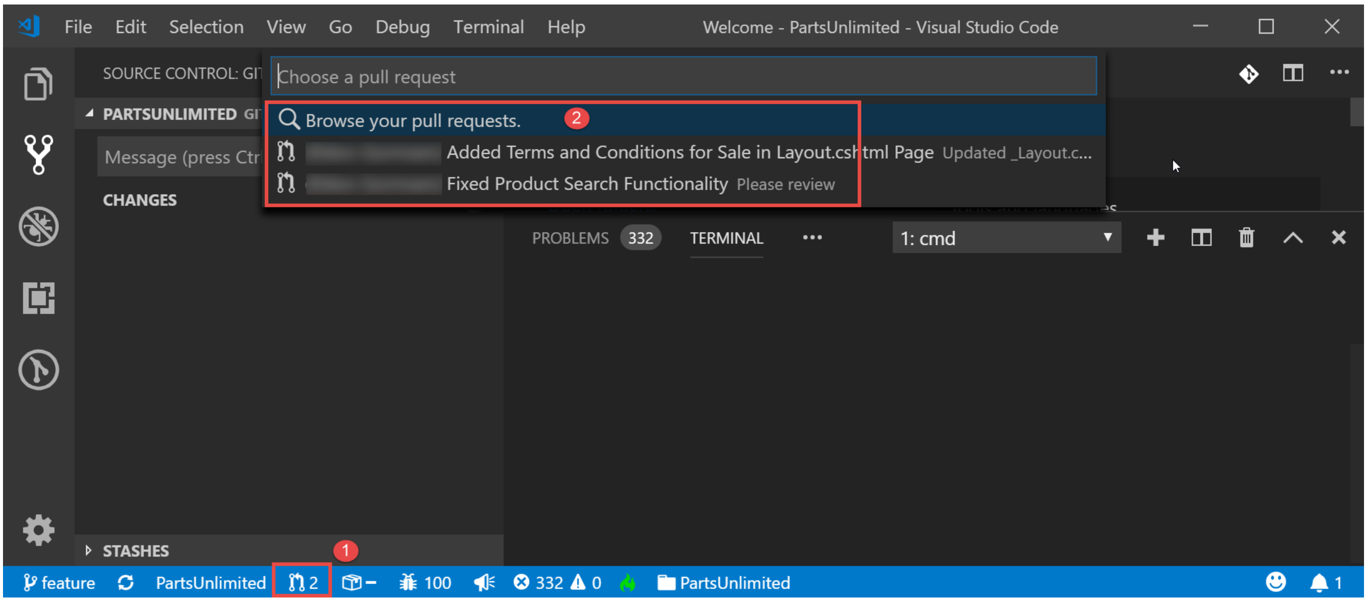
Connect to Azure Repos and work with G...

This extension is recommended because you have Git installed.

Azure Repos Extension for Visual Studio Code

Task 2: Create Pull Request for pushed **feature** branch in Visual Studio Code

1. You can view your request from Visual Studio Code. Click on the Pull Request Icon in the status bar in order to bring up a list of pull requests assigned to you.



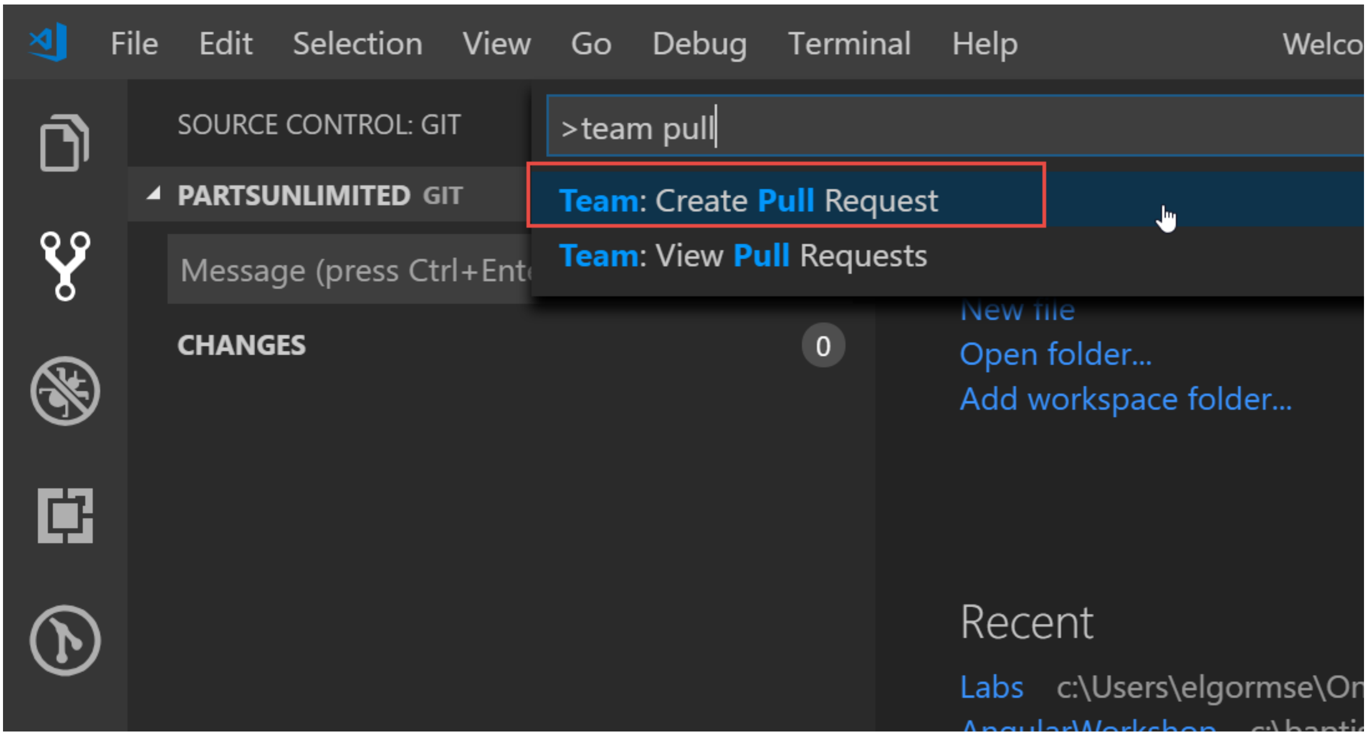
Choose a pull request

Browse your pull requests.

[redacted] Added Terms and Conditions for Sale in Layout.cshtml Page Updated _Layout.c...

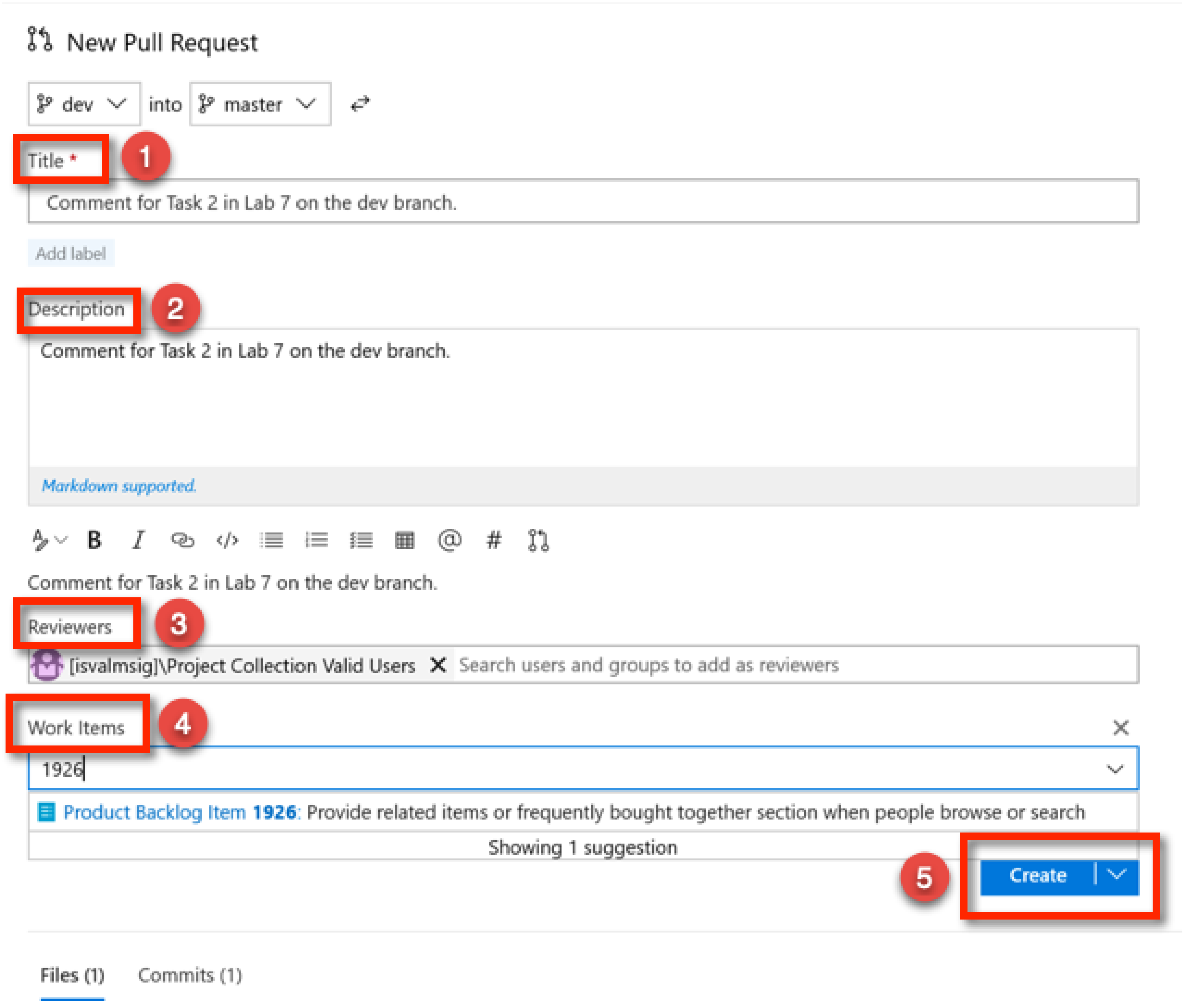
[redacted] Fixed Product Search Functionality Please review

2. To create a new Pull Request go the command palette and type **team pull**. Click on **Create Pull Request** to open up your web browser where you can create the new pull request in the Azure DevOps Services web portal for your current branch.



Task 3: Creating Pull Request for pushed branch

1. With the New Pull Request, by default your commit message it used for the title of the Pull Request. You should give a clear **(1)title** for the pull request that describes the changes in the branch. In the **(2)description** field give a clear explanation of how the changes are implemented along with any resources that might help reviewers understand the changes. You can include Azure DevOps **(3)work items** and hyperlinks to allow others to have as much context as possible when reviewing your changes. Add any **(4)team member or group** who you would like to review the changes, add yourself as a reviewer for the purposes of the lab. Click on **(5)Create** to create the new pull request.



New Pull Request

dev into master

Title *: Comment for Task 2 in Lab 7 on the dev branch.

Add label

Description: Comment for Task 2 in Lab 7 on the dev branch.

Markdown supported.

Comment for Task 2 in Lab 7 on the dev branch.

Reviewers: [isvalmsig]\Project Collection Valid Users ✕ Search users and groups to add as reviewers

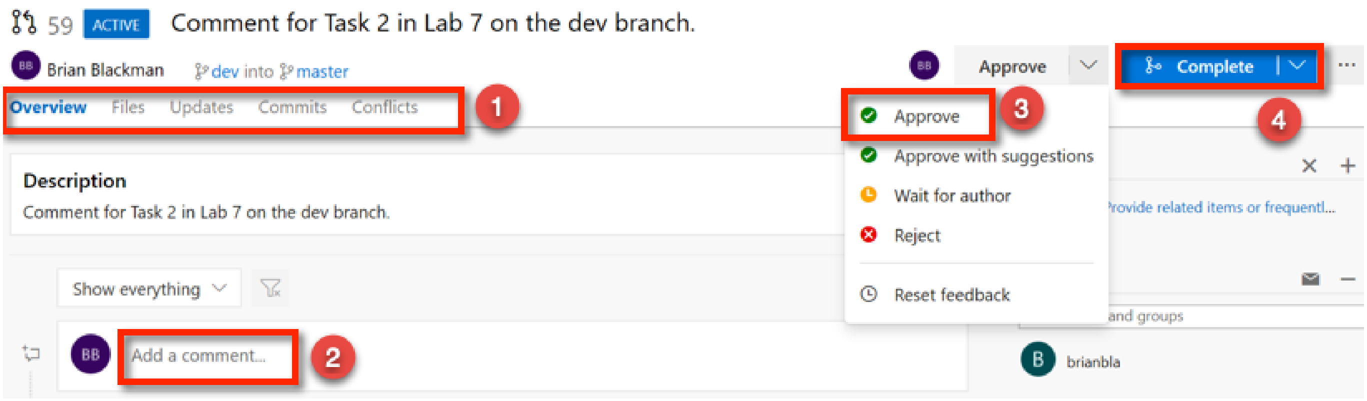
Work Items: 1926

Product Backlog Item **1926**: Provide related items or frequently bought together section when people browse or search

Showing 1 suggestion

2. Reviewers can view the **(1)Files, Updates, Commits, and any Conflicts**. They can **(2)add comments**. Once you get the team's feedback, you can keep the pull request open to continue the conversation or abandon the pull request until your code is ready to be shared again.

3. Approve your pull request by clicking on **(3) Approve** and complete your pull request after the reviewers approve of the changes by selecting **(4)Complete**.



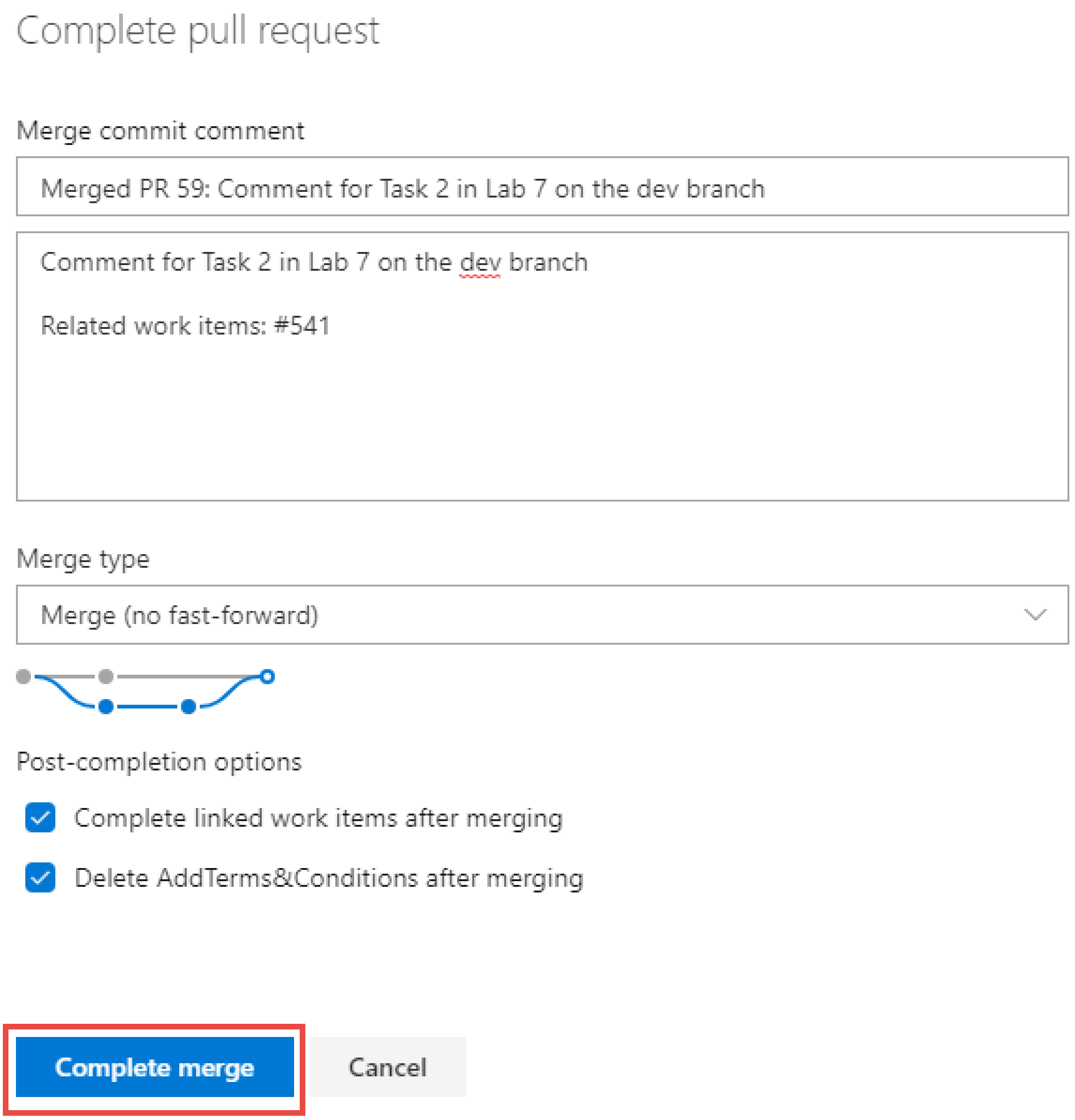
59 ACTIVE Comment for Task 2 in Lab 7 on the dev branch.

Brian Blackman dev into master

Description

Comment for Task 2 in Lab 7 on the dev branch.

4. Now you have a few options, complete linked work items after merging to complete any linked work items, delete your after merging, squash changes when merging your pull request. Click on **Complete Merge**.



Complete pull request

Merge commit comment

Merged PR 59: Comment for Task 2 in Lab 7 on the dev branch

Comment for Task 2 in Lab 7 on the dev branch

Related work items: #541

Merge type

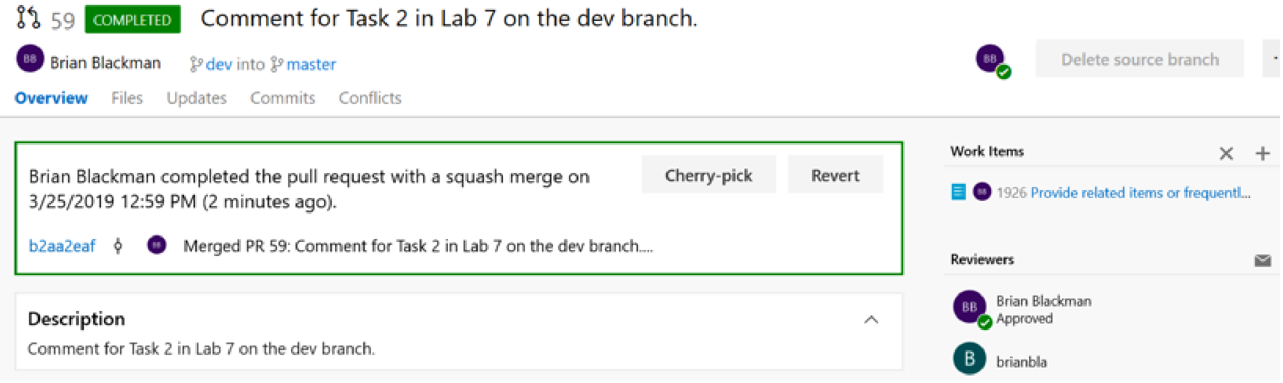
Merge (no fast-forward)

Post-completion options

☑ Complete linked work items after merging

☑ Delete AddTerms&Conditions after merging

5. And your pull request, merge, squash, and work items are complete.



59 COMPLETED Comment for Task 2 in Lab 7 on the dev branch.

Brian Blackman dev into master

Brian Blackman completed the pull request with a squash merge on 3/25/2019 12:59 PM (2 minutes ago).

b2aa2eaf Merged PR 59: Comment for Task 2 in Lab 7 on the dev branch....

Description

Comment for Task 2 in Lab 7 on the dev branch.

Work Items

1926 Provide related items or frequentl...

Reviewers

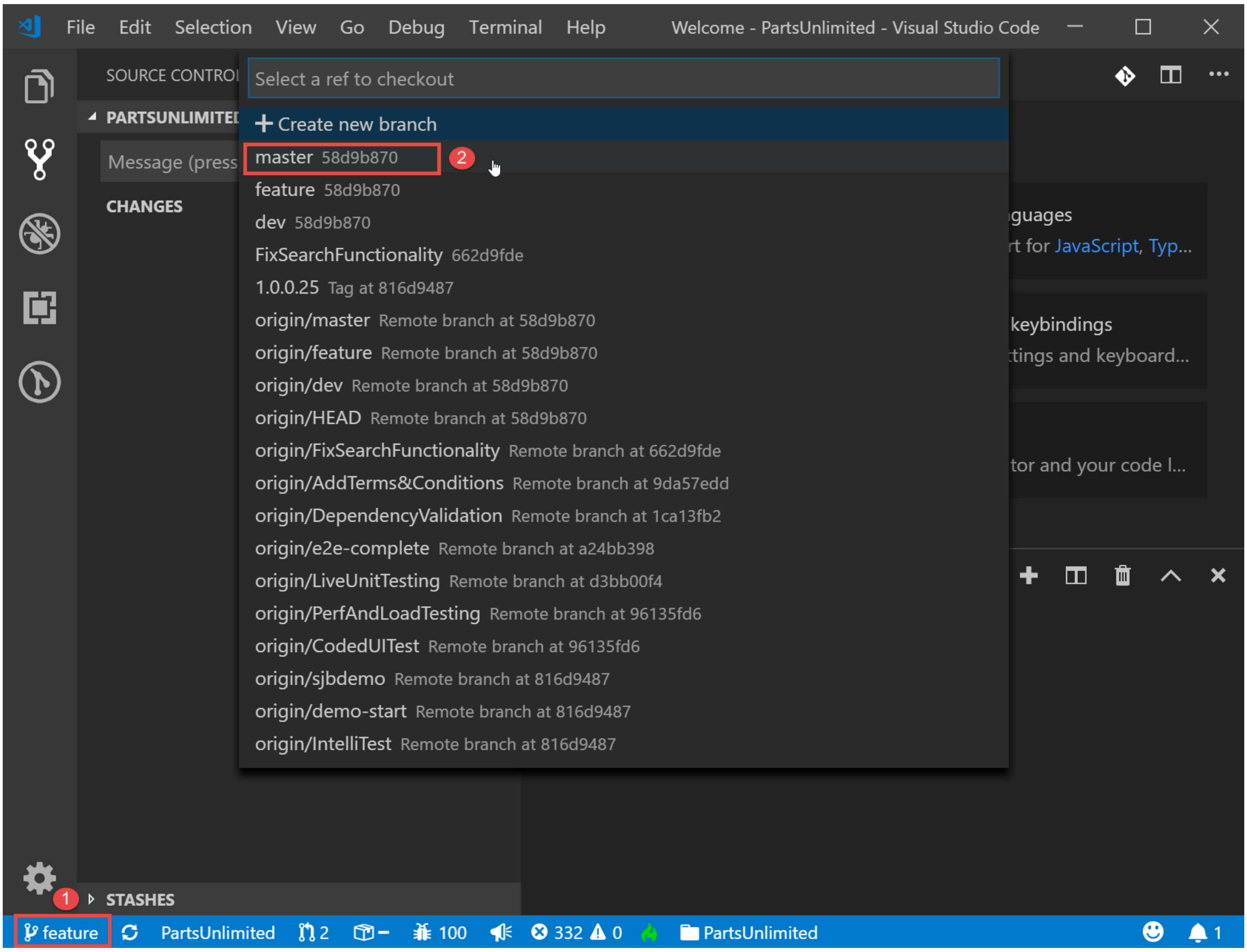
Brian Blackman Approved

brianbla

Task 4: Update your local branch with the remote master branch that has the changes from the pull request.

Now you need to get the pull request changes merged into the remote master updated in your local master.

1. In Visual Studio Code, click on the **Branches Icon** in the status bar (it should be on the feature branch, and then select the **master** branch.



Select a ref to checkout

+ Create new branch
master 58d9b870
feature 58d9b870
dev 58d9b870
FixSearchFunctionality 662d9fde
1.0.0.25 Tag at 816d9487
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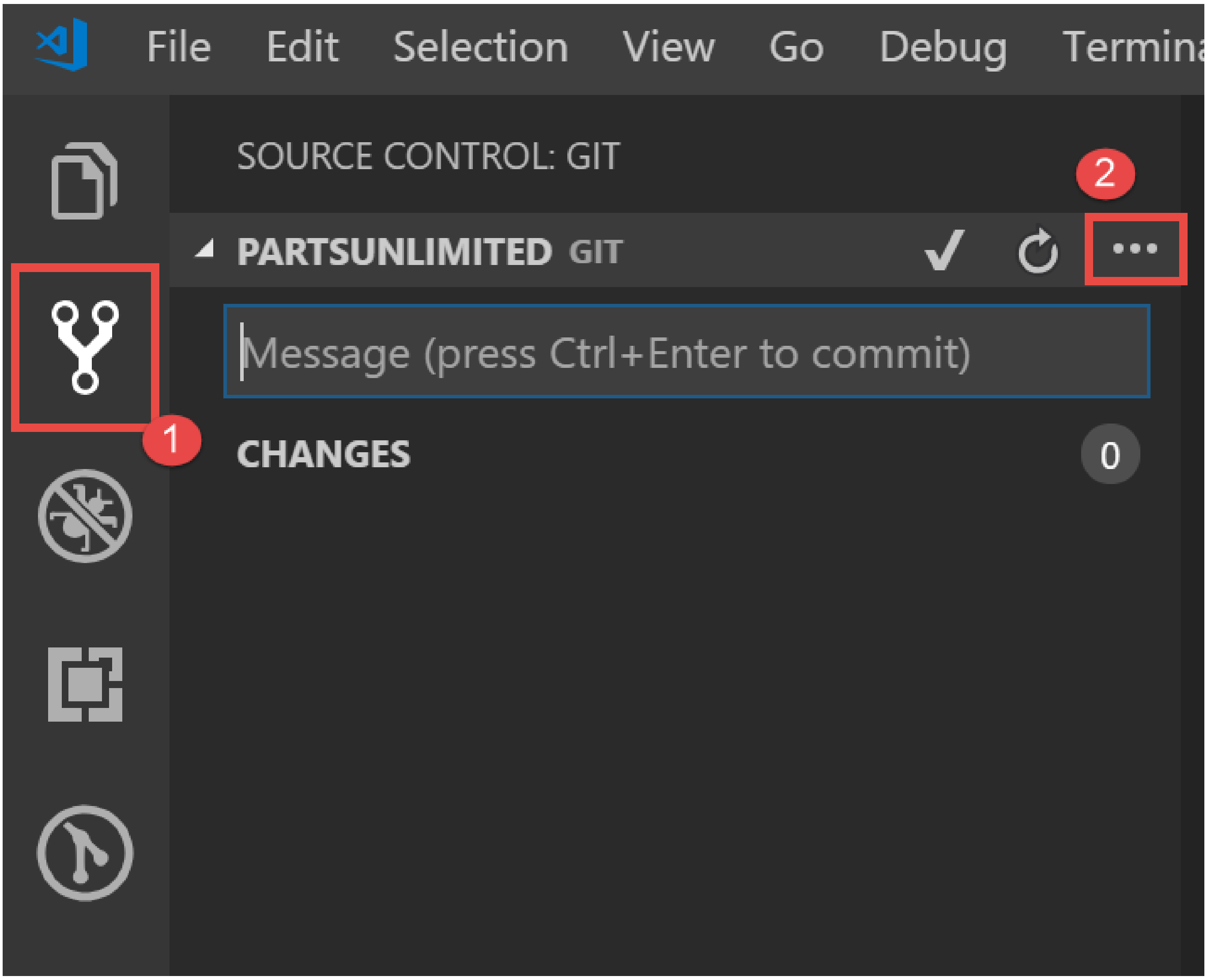
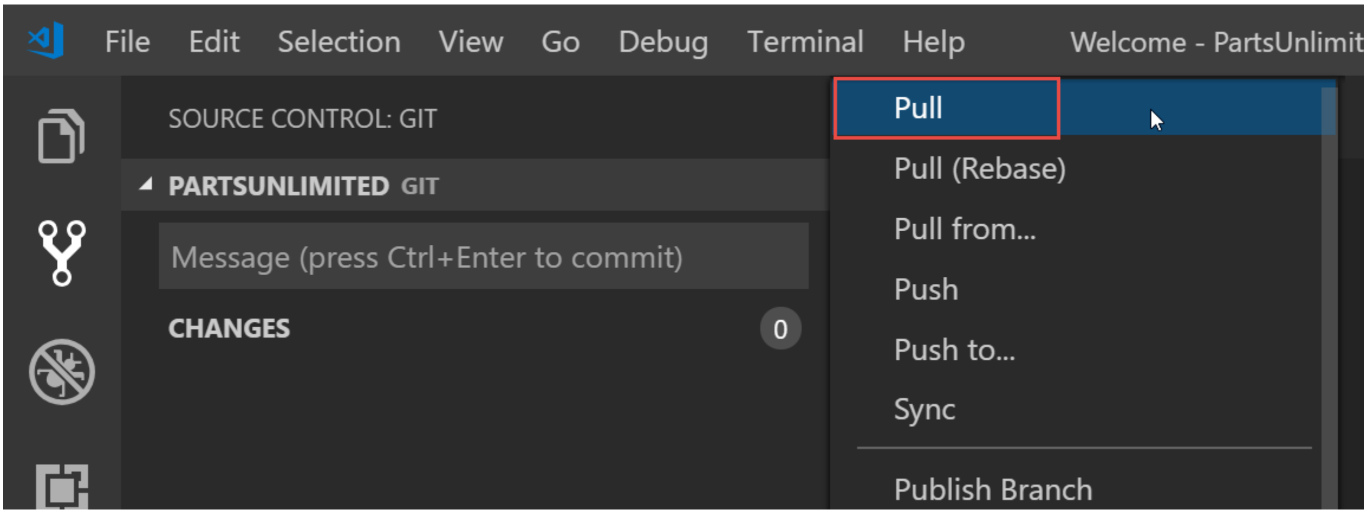
origin/sjbdemo Remote branch at 816d9487
origin/demo-start Remote branch at 816d9487
origin/IntelliTest Remote branch at 816d9487

2. Now we will pull the changes from the Azure repo to your local repo. First click on the **source control** icon then click on the **..." next to the repo you are working on.



2. Next select **pull** from the list. The Visual Studio Code with initiation pulling the changes into your local repo. Once is has completed the merged code will be on your computer.

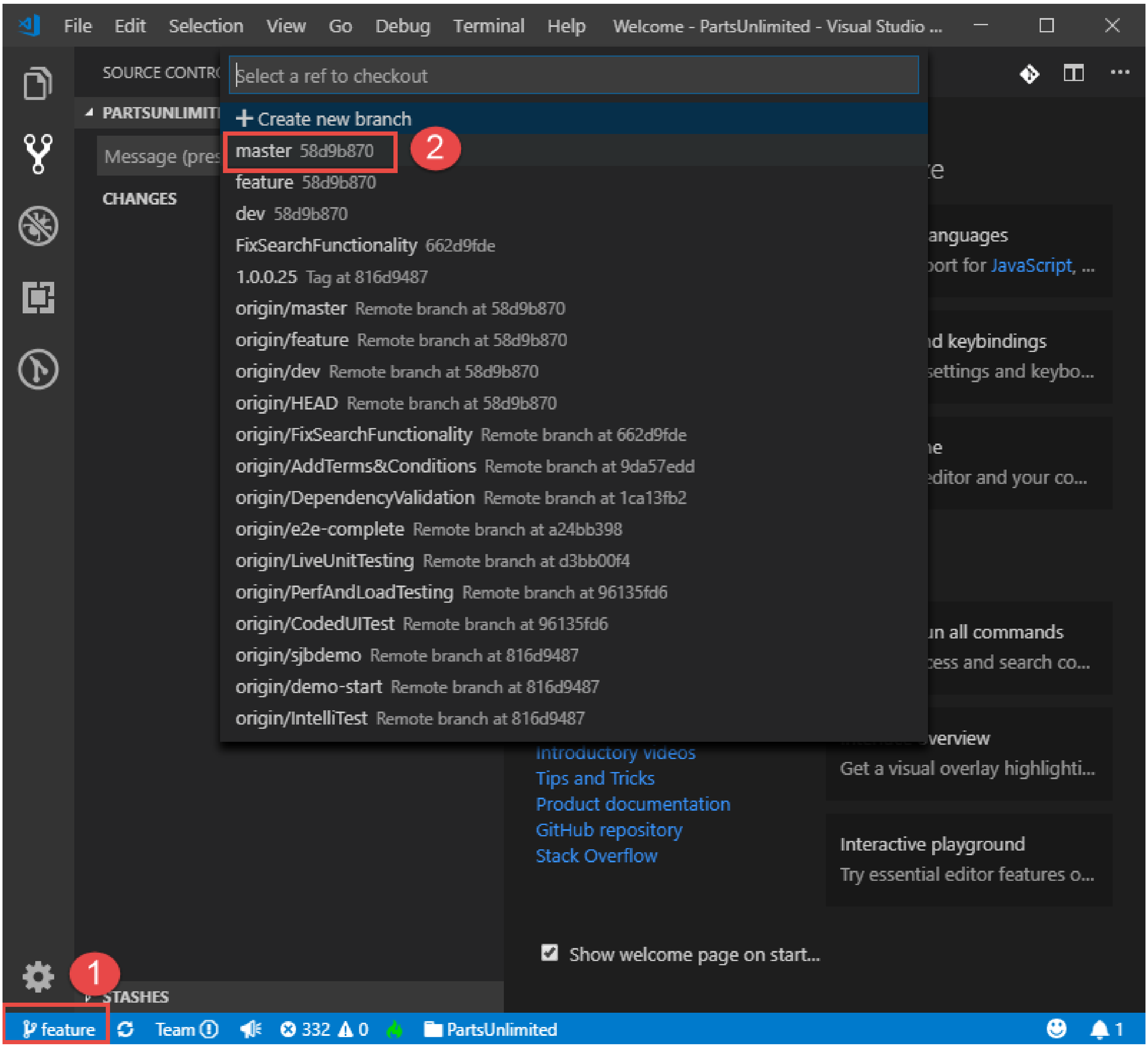


Exercise 3: Deleting branches

Task 1: Deleting branches locally and remotely

1. When you created the **feature** branch earlier, **Visual Studio Code** switched you to it. Since you are not working on feature and no longer need it lets delete it. Manually switch back to by clicking the

branches icon and then clicking on **master**



Select a ref to checkout

+ Create new branch
master 58d9b870
feature 58d9b870
dev 58d9b870
FixSearchFunctionality 662d9fde
1.0.0.25 Tag at 816d9487
origin/master Remote branch at 58d9b870
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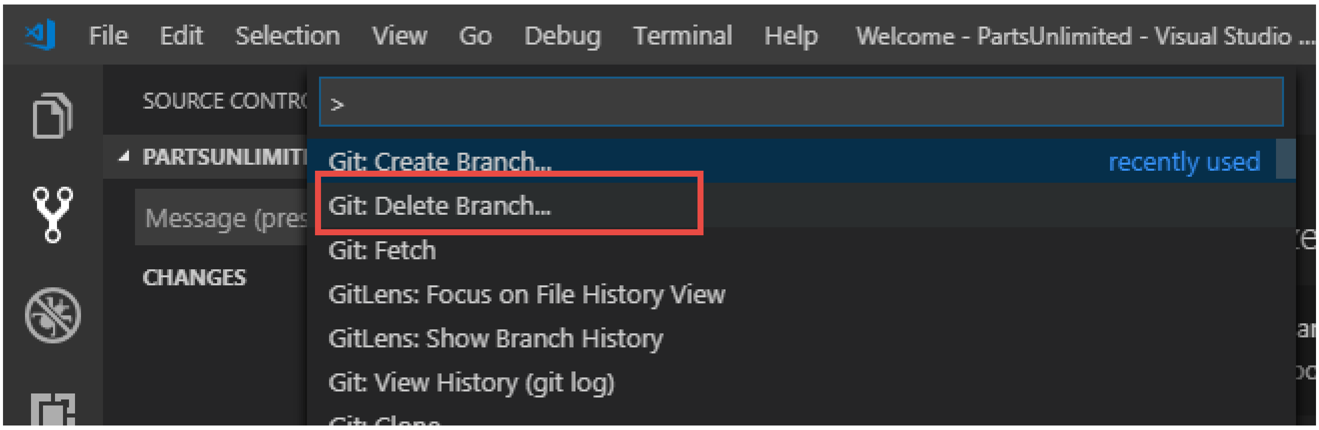
origin/sjbdemo Remote branch at 816d9487
origin/demo-start Remote branch at 816d9487
origin/IntelliTest Remote branch at 816d9487

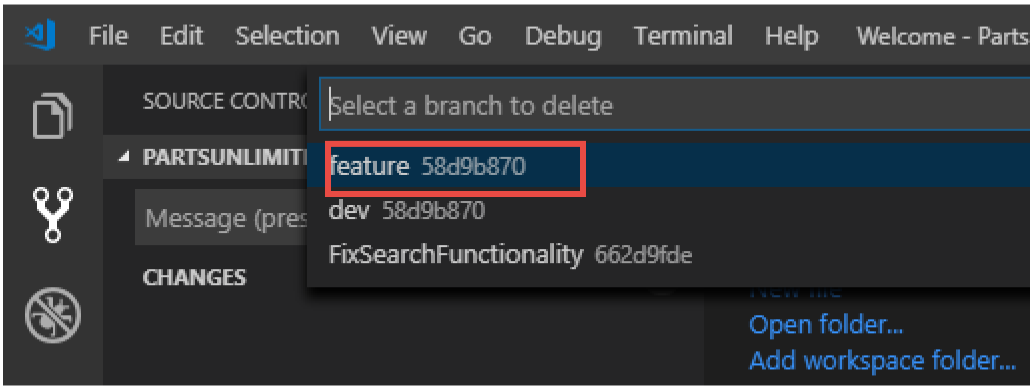
Then go to the Command Palette and select **Git Delete Branch**



>

Git: Create Branch... recently used
Git: Delete Branch...
Git: Fetch
GitLens: Focus on File History View
GitLens: Show Branch History
Git: View History (git log)
Git: Clone

Then select the branch **feature** and it will be deleted



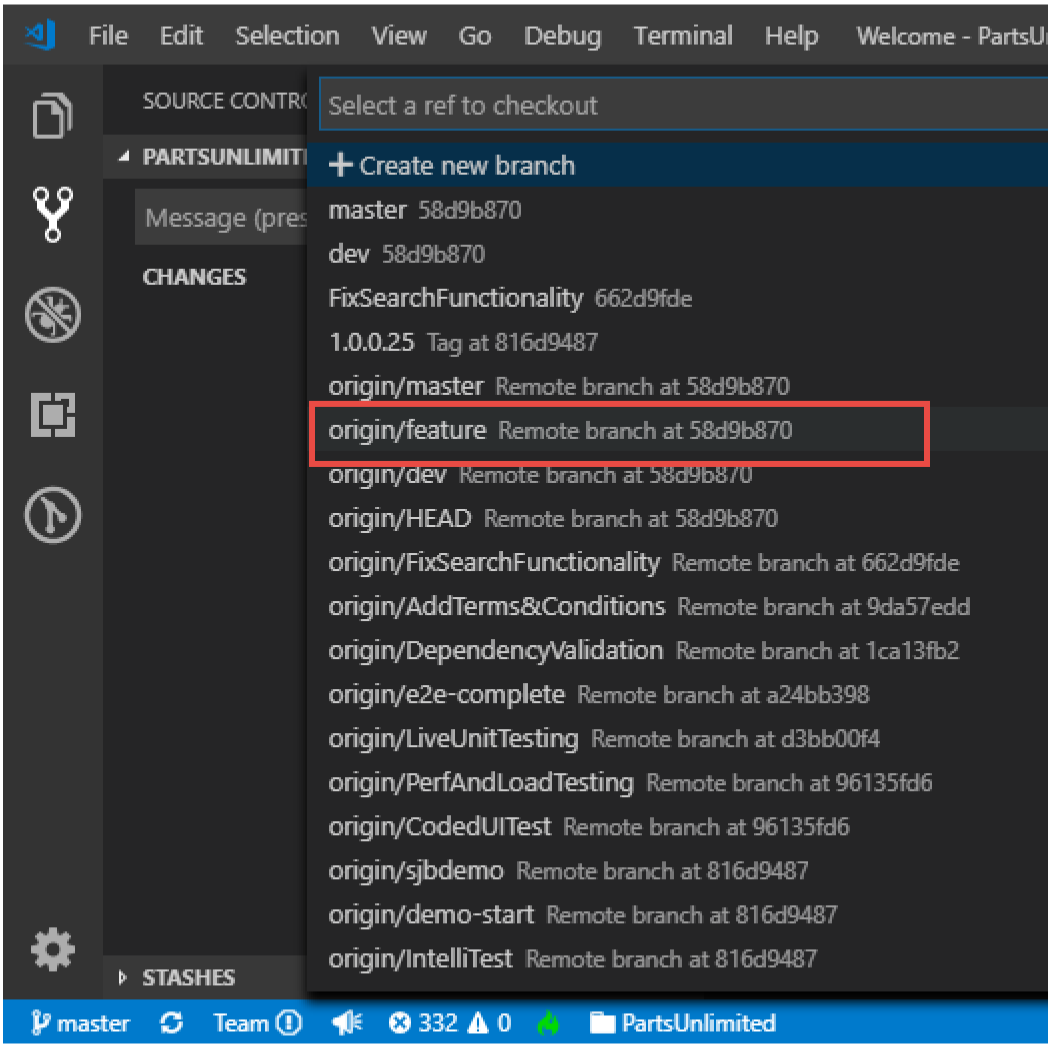
Select a branch to delete

feature 58d9b870

dev 58d9b870

FixSearchFunctionality 662d9fde

2. Note that while you have deleted the local **dev** branch, the remote branch still exists



Select a ref to checkout

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master 58d9b870
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FixSearchFunctionality 662d9fde
1.0.0.25 Tag at 816d9487
origin/master Remote branch at 58d9b870
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origin/AddTerms&Conditions Remote branch at 9da57edd
origin/DependencyValidation Remote branch at 1ca13fb2
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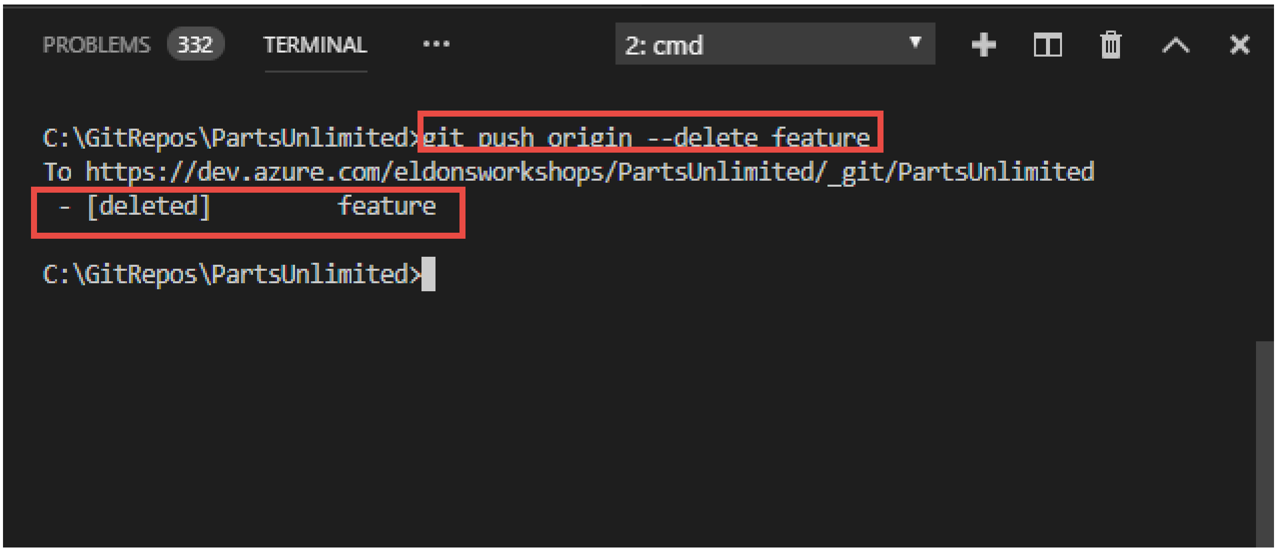
origin/CodedUITest Remote branch at 96135fd6
origin/sjbdemo Remote branch at 816d9487
origin/demo-start Remote branch at 816d9487
origin/IntelliTest Remote branch at 816d9487

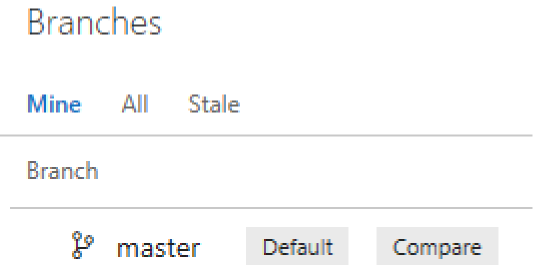
3. To delete the remote branch, go the the terminal window and enter **git push origin --delete feature** and press enter.



```
C:\GitRepos\PartsUnlimited>git push origin --delete feature
To https://dev.azure.com/eldonsworkshops/PartsUnlimited/_git/PartsUnlimited
 - [deleted]         feature

C:\GitRepos\PartsUnlimited>
```

4. You can confirm that it's gone by refreshing the **Branches** page on Azure DevOps.



Congratulations, you have created a branch, switched branches, shared your branch with your team, deleted local and remote branches, and you managed branches from Visual Studio Code!