

Azure Repos Workshop

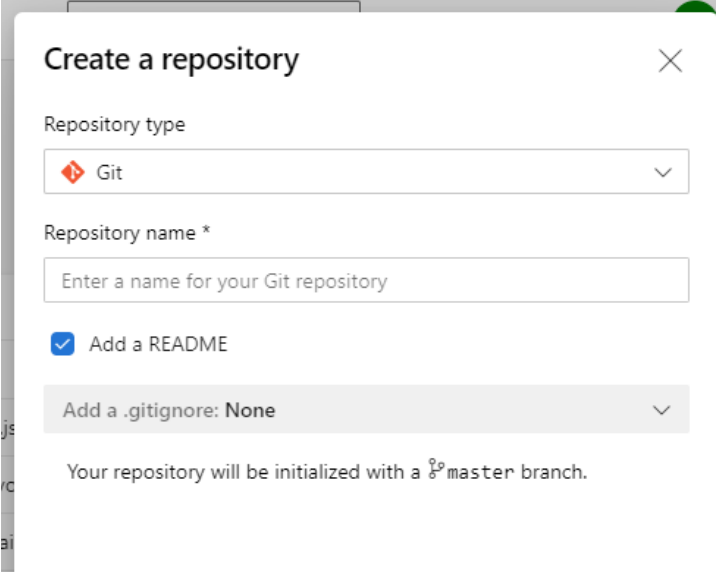
Agenda

- Azure Repos
- Files
- Commits
- Pushes
- Branches
- Tags
- Pull Requests
- Q&A




Azure Repos

- Git repository within Azure DevOps
- Alternative for other version control software
 - GitHub
 - TFS
 - CVS
 - SVN
 - ...



The screenshot shows a 'Create a repository' dialog box with the following fields and options:

- Repository type:** A dropdown menu with 'Git' selected.
- Repository name *:** A text input field with the placeholder text 'Enter a name for your Git repository'.
- Add a README:** A checked checkbox.
- Add a .gitignore:** A dropdown menu with 'None' selected.

Below the form, a note states: 'Your repository will be initialized with a  master branch.'

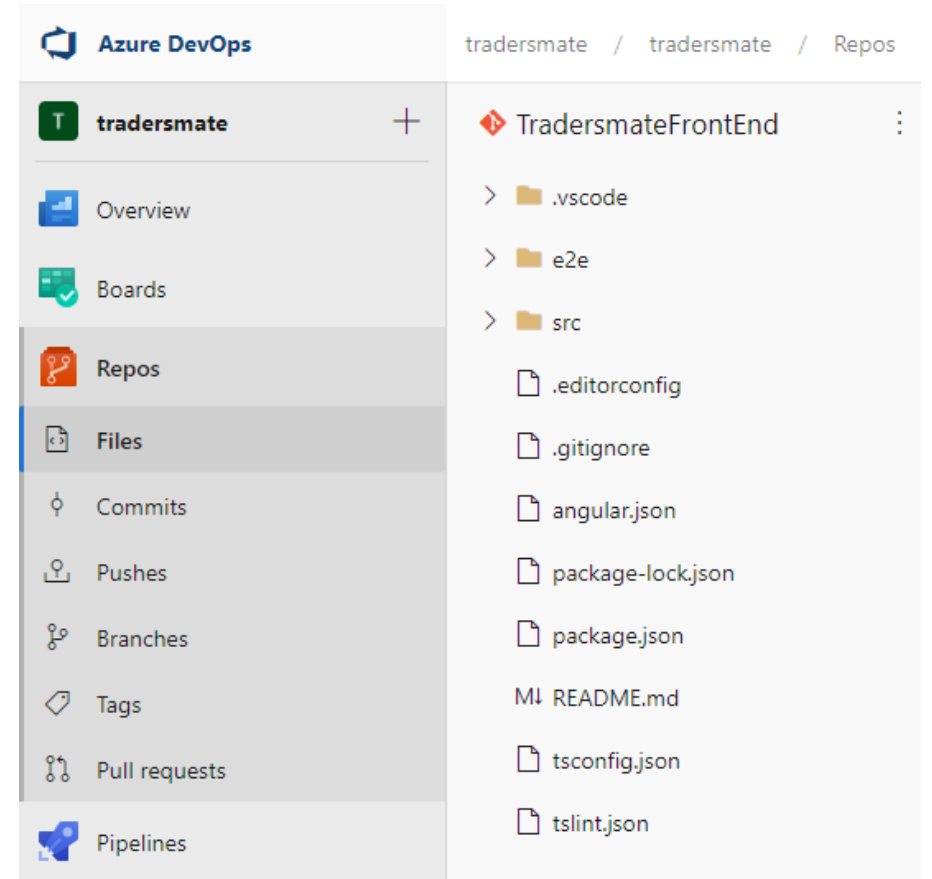
Creating a repository

- Multiple ways to create a repository
 - Web
 - CLI
 - IDEs (VS, Xcode, IntelliJ, Eclipse)
- A repository generally contains code and documentation
- Existing repositories can be cloned




Files







- Displays your files and folders in the browser
- Displays any readme markup files
- You can see the history per file



Commits

- Shows all individual commits for the selected branch
- Filter branches on name and tags
- Filter commits on commit id, date, and author



Added filter in tracked products 18ddd5b8  dibran 26 jun. 2019 at 11:31
Added sorting 9419e4e4  dibran 26 jun. 2019 at 11:00
First setup of my assortment grid cd5ccd54  dibran 24 jun. 2019 at 13:32
First mini view of assortment dea7d3d3  dibran 24 jun. 2019 at 11:06
Added page for assortment bb8cc184  Dibran Mulder 21 jun. 2019 at 16:00
Made public 1819f380  dibran 19 jun. 2019 at 11:56

Pushes

- Shows all pushes for the selected branch
- See the commits per push
- Filter pushes on name and tags
- Filter pushes on date and user
- There is an indication noting whether a triggered (pipeline) build was successful or not

Branches

- Shows *mine*, *all*, and *stale* branches
- Can filter on branch names
- Can create new branches
- See the status of a triggered pipeline
- See the pull request the branch is related to
- See how many commits this branch is ahead or behind of the compare branch
- Set up branch policies

Branch Policies

- In general, you will want to set up policies on important branches
- Automatically applied to pull requests into these branches
- Examples
 - Minimum number of reviewers
 - Checking for linked work items
 - Checking for comment resolution
 - Build validations
 - Quality gate status checks

Tags

- Create additional tags
- Find commits by tag

Pull Requests

- Pull requests are organized by *mine, active, completed, abandoned*
- Filter by pull request id and user
- Pull requests can require passing various checks before allowing completion
 - These checks can be enforced by branch policies
- Can be set to autocomplete once all checks pass

Pull Requests

- A description can be added to the pull requests and comments can be written
- All separate updates (commits and pushes) can be checked
- Files can be inspected in the pull request
- Conflicts may be resolved in the pull request



Azure DevOps Pull Requests

The screenshot shows an Azure DevOps Pull Request interface. At the top, the breadcrumb navigation indicates the path: `alegri-group / #AlegrnCockpit201 / Repos / Pull requests / #AlegrnCockpit_Api`. The pull request title is "Project Server Buchungzeiten Sync WebJob" (ID 4948), which is in a "COMPLETED" state. It was created by Artur Kosowski, pushing from the `feature/project-server-db--buchungszeiten-sync` branch into the `master` branch. The status is "All resolved".

The left sidebar contains navigation icons for Overview, Files, Updates, Commits, and Conflicts. The main content area shows a list of updates:

- Update 3: "Exclude classes from code coverage" (commit `1d145fda`) by Artur Kosowski on 15.04.2019 at 17:48.
- Update 2: "Fix code smells" (commit `f93a32e1`) by Artur Kosowski on 15.04.2019 at 17:29.

Below the updates, the code diff for `ProjectServerDbService.cs` is shown. The diff highlights a code smell in the SQL query:

```
^ 37 + "WHERE AssignmentByDay.TimeByDay >= '{0}' " +
38 + "AND AssignmentByDay.TimeByDay <= '{1}' " +
39 + "AND AssignmentByDay.AssignmentActualWork > 0 " +
40 + "AND Resource.ResourceIsActive = 1 " +
41 + "AND LookupTable.MemberFullValue LIKE 'TOP.%.%' " +
42 + "AND Project.ProjectType = 0 " +
43 + "AND Project.ProjectCreatedDate >= '2019-03-01' ", fromDateStr, todayDateStr)
44 + .OrderByDescending(e => e.TimeByDay)
45 + .Skip(skip)
46 + .Take(top)
```

A comment from Michael Kaufmann (dated 15.04.2019) is highlighted with a red box, stating: "Code Smell: The SQL expression passed to 'FromSql' embeds data that will not be parameterized. Review for potential SQL injection vulnerability. See <https://go.microsoft.com/fwlink/?linkid=871170> for more information. (external_roslyn:EF1000)". A link to "See it in SonarCloud" is provided below the comment.

On the right side, the "Policies" section lists requirements:

- Required: 2 reviewers approved, Required reviewers have approved, All comments resolved, Build succeeded, and Quality Gate passed (highlighted with a red box).
- Optional: Work items linked.

The "Work Items" section shows a link to "Project Server DB Buchungzeit...". The "Reviewers" section shows two reviewers: Michael Kaufmann (Approved) and Artur Kosowski (Approved).

Q&A

- Time for questions