

DEV03 - How-to build (Web) Apps for Microsoft Teams

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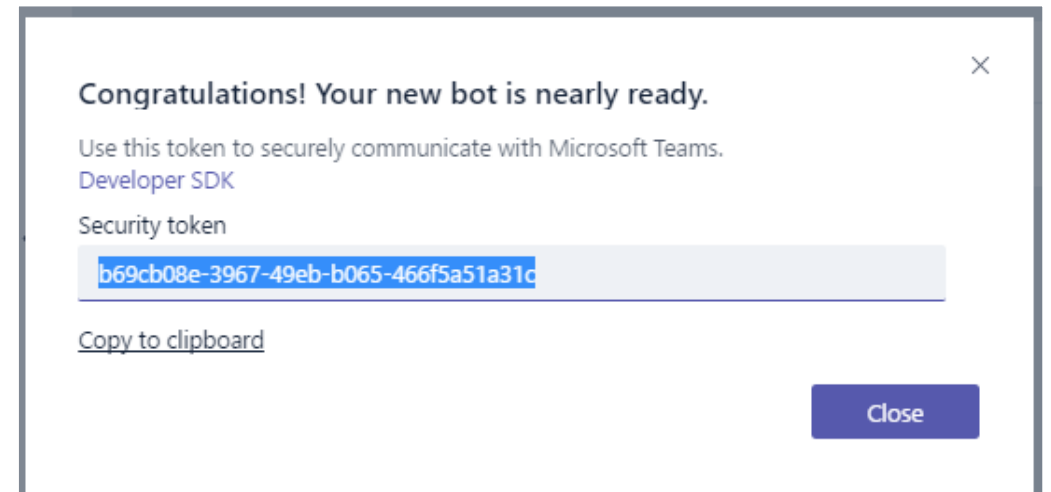
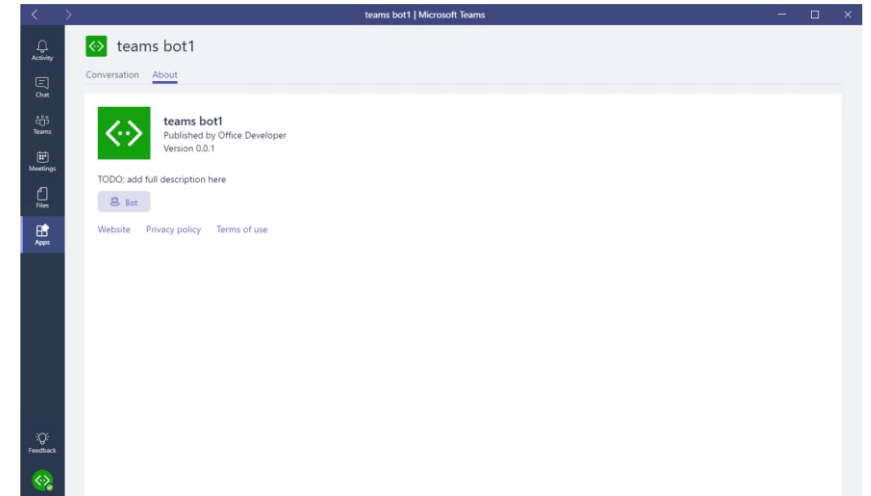
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Office Development MVP



Teams-extensibility options

- Microsoft Teams App
 - Tabs
 - Bots
 - Messaging extensions
 - Connectors
- Custom Bot
 - Receive & reply to messages



What is a Teams App?

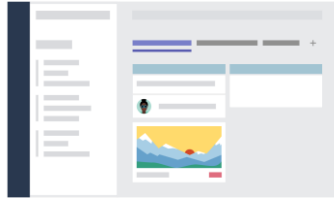
Package of services available to users in the contexts (or “scopes”) that make the most sense.

1. Services
 - Tabs
 - Bots
 - Messaging extensions
 - Connectors
2. Scopes
 - Personal (App bar)
 - Team (Channel)
3. Package (deployment)
 - Upload (one Team)
 - Tenant App Catalog
 - Office Store

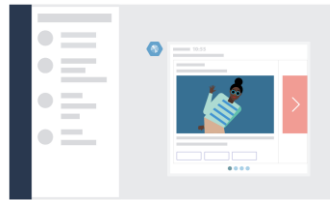
Why create a Teams App?



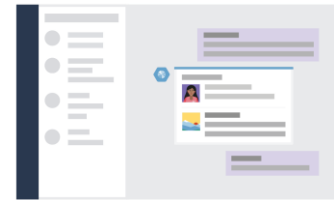
The platform places content and conversations side by side.



Tabs give your app a dedicated canvas that allows people to jump between conversations and your experience.



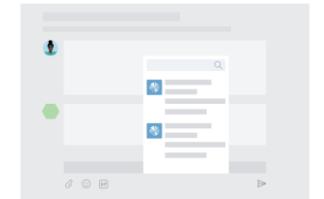
Cards let you surface important tasks, information, and reminders in actionable ways.



The Bot framework offers a natural language UX that can interact with your services.



The activity feed displays notifications for your users.



Messaging Extensions are quick and easy shortcuts to key components of your service.



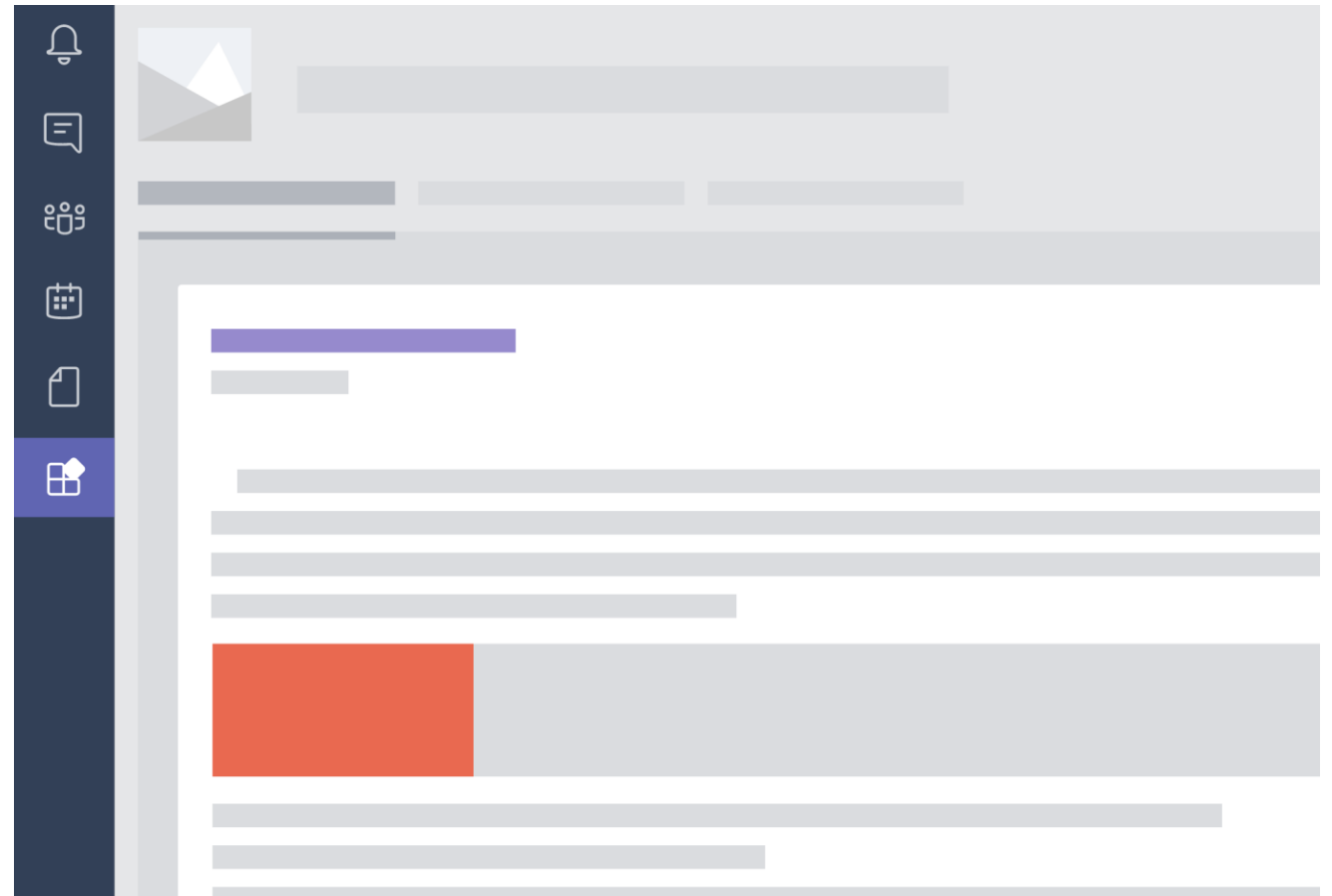
Teams Tabs

Tabs are canvases that you can use to share content, hold conversations, and host third-party services, all within a team's organic workflow.

When you build a tab in Microsoft Teams, it **puts your web app front and center** where it's easily accessible from key conversations.

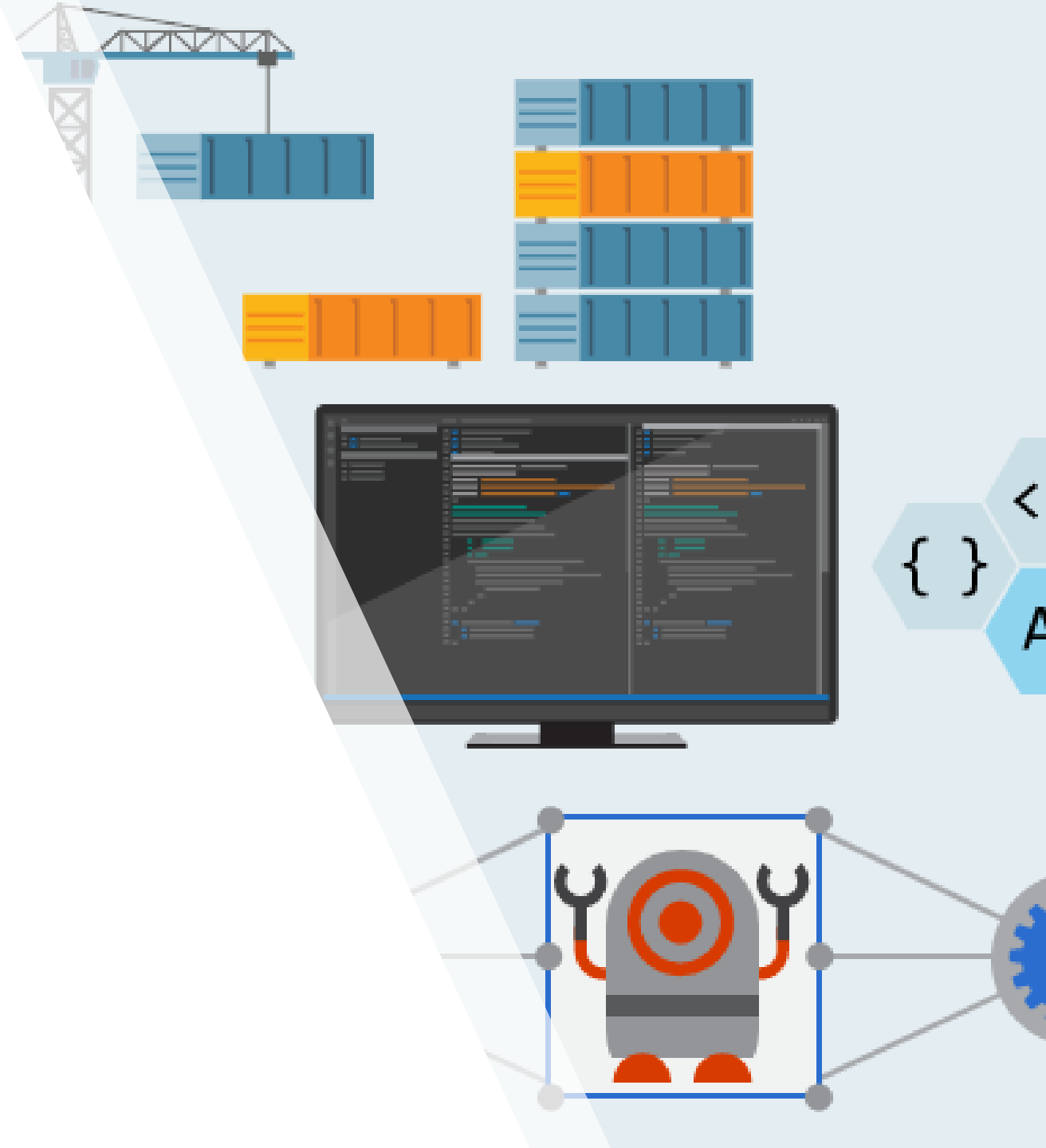
Design Guidelines:

<https://docs.microsoft.com/en-us/microsoftteams/platform/resources/design/framework/tabs>



How to create a Teams App

- Develop components
 - HTML
 - TypeScript / JavaScript
 - .NET
- Integrate with Teams
 - Microsoft Teams JavaScript Library
 - Bot Builder SDK - Node.js & C#
- Package and deploy
 - Host web pages and services
 - Create and package manifest
 - Upload/publish package



Microsoft Teams JavaScript client SDK

It makes it easy to integrate your own services with Teams, whether you develop custom apps for your enterprise or SaaS applications for teams around the world.

1. Installing the SDK:
`npm install --save @microsoft/teams-js`
2. Using the SDK
`import * as microsoftTeams from "@microsoft/teams-js";`

SDK Reference:

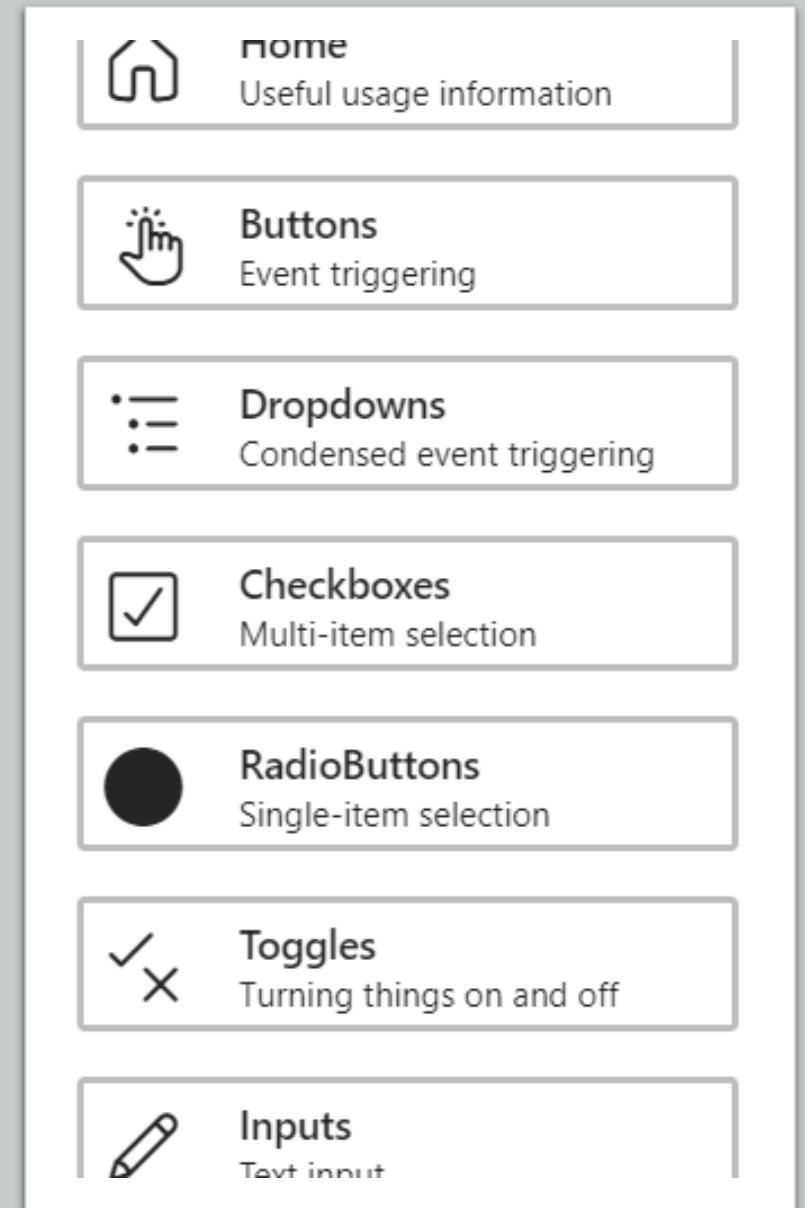
<https://docs.microsoft.com/en-us/javascript/api/overview/msteams-client?view=msteams-client-js-latest>



Microsoft Teams Control Library

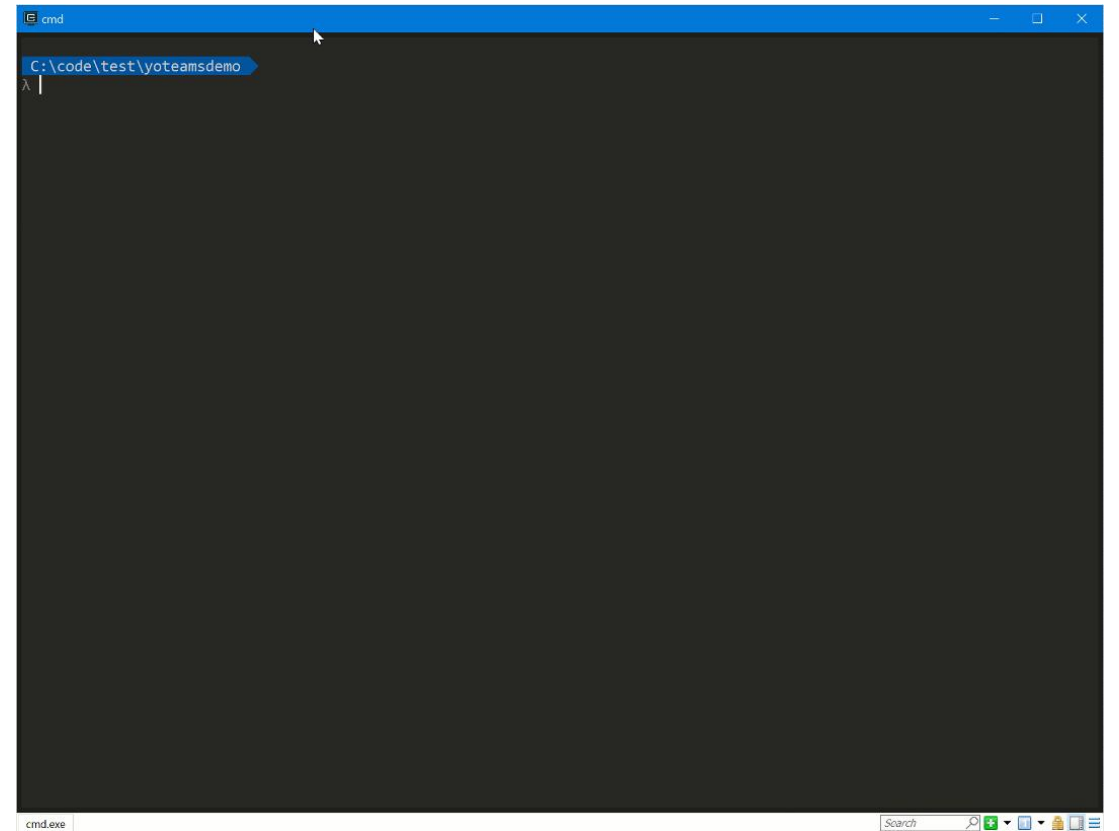
These controls, styles, and fonts that will easily make your apps have the look and feel common to other Microsoft Teams apps.

- [msteams-ui-styles-core](#) - The core CSS styles of UI components. Independent of any UI framework.
- [msteams-ui-icons-core](#) - The core set of Teams icons. Independent of any UI framework.
- [msteams-ui-components-react](#) - **The React binding library.** It depends on msteams-ui-styles-core and React.
- [msteams-ui-icons-react](#) - The React binding library for the set of Teams icons. It depends on msteams-ui-icons-core and React.



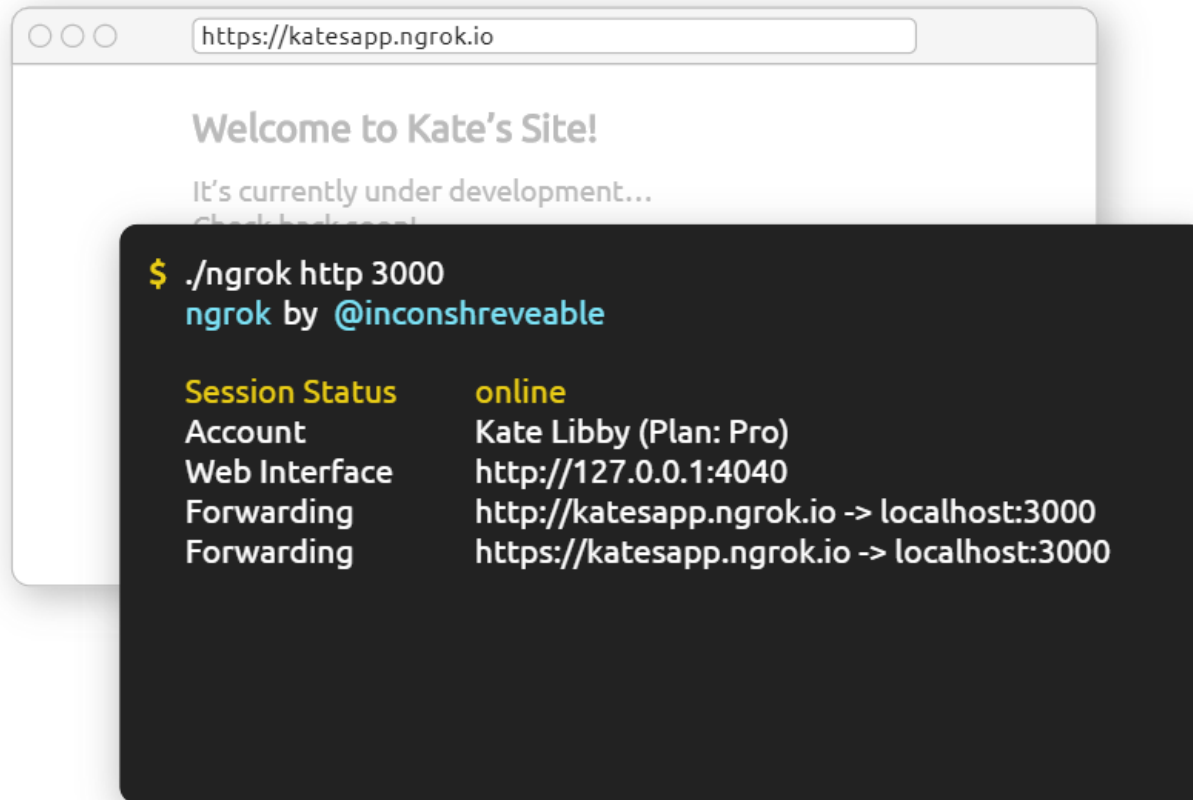
Create a Custom Teams Tab using Yeoman Teams Generator

1. `npm install generator-teams --global`
2. `yo teams`
3. `npm install`
4. `gulp ngrok-serve`



What is ngrok?

ngrok exposes local servers behind NATs and firewalls to the public internet over secure tunnels.



Demo

Create basic Teams App using “Teams Yeoman Generator”

Create a Custom Teams Tab using SPFx Solution

1. `npm install @microsoft/generator-sharepoint -g`
2. `yo @microsoft/sharepoint`
3. `npm install`

Building Microsoft Teams tab using SharePoint Framework - Tutorial

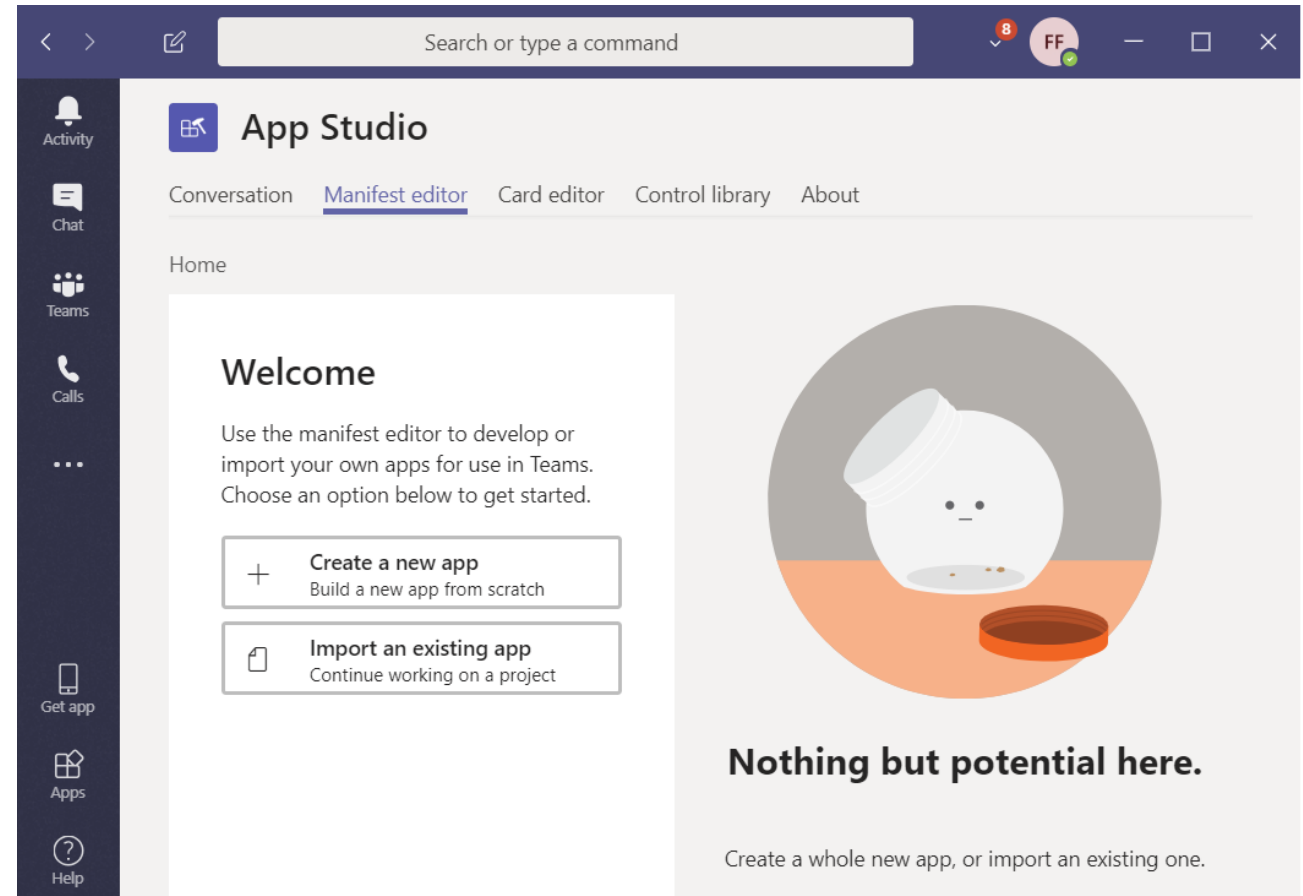
<https://docs.microsoft.com/en-us/sharepoint/dev/spfx/web-parts/get-started/using-web-part-as-ms-teams-tab>

Create a Custom Teams Tab (Server Side)

Using App Studio for the creation of the manifest and package for your app.

Requirements:

- Pages must be hosted on a secure HTTPS endpoint.
- Your content must work in an <iframe>.
- Include the [Microsoft Teams JavaScript client SDK](#)
- call `microsoftTeams.initialize()`
- All domains for pages you display in your tabs must be listed in the manifest's `validDomains` list.

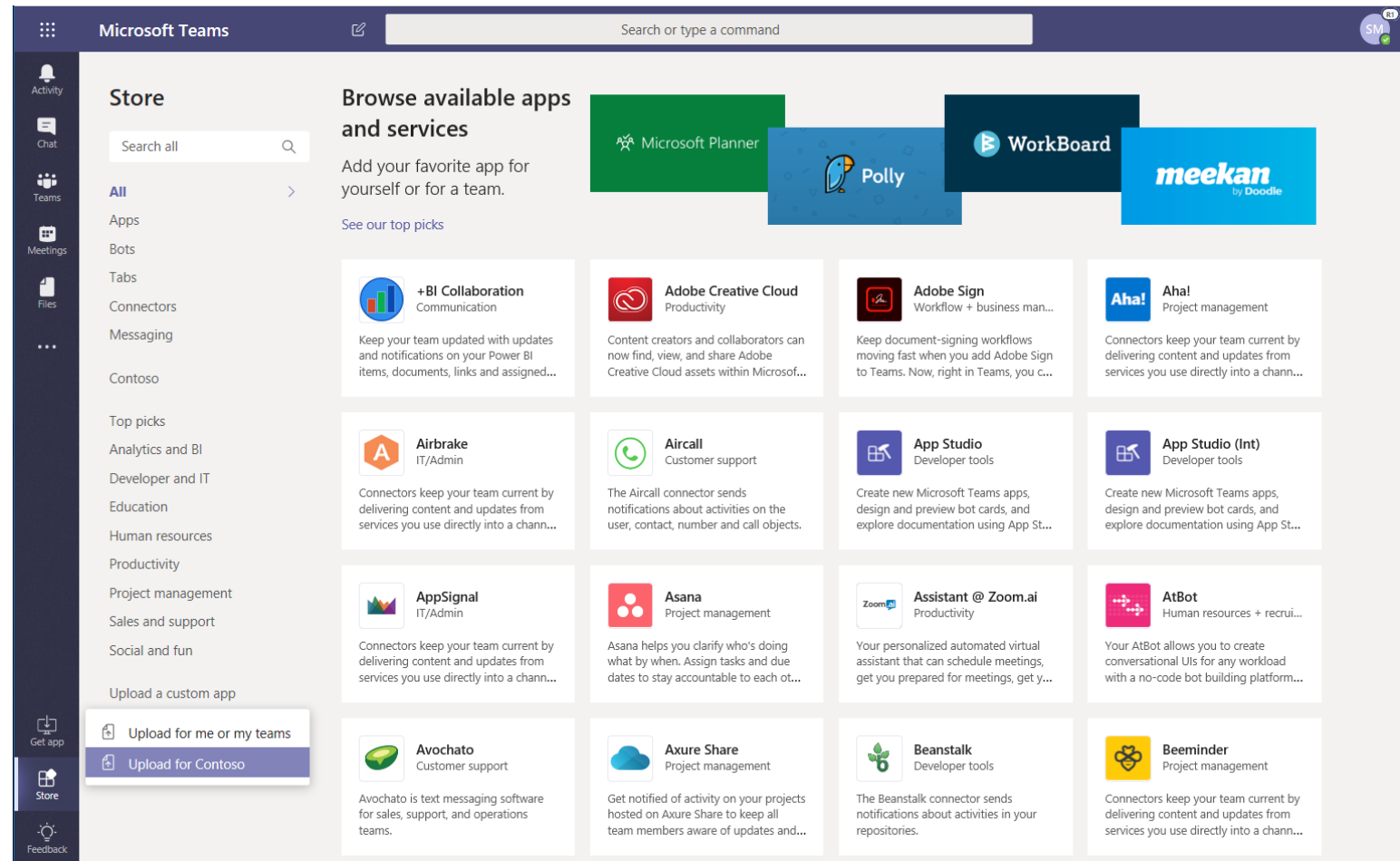


Demo

- Create basic Teams App using “SPFx Yeoman Generator”
- Use App Studio

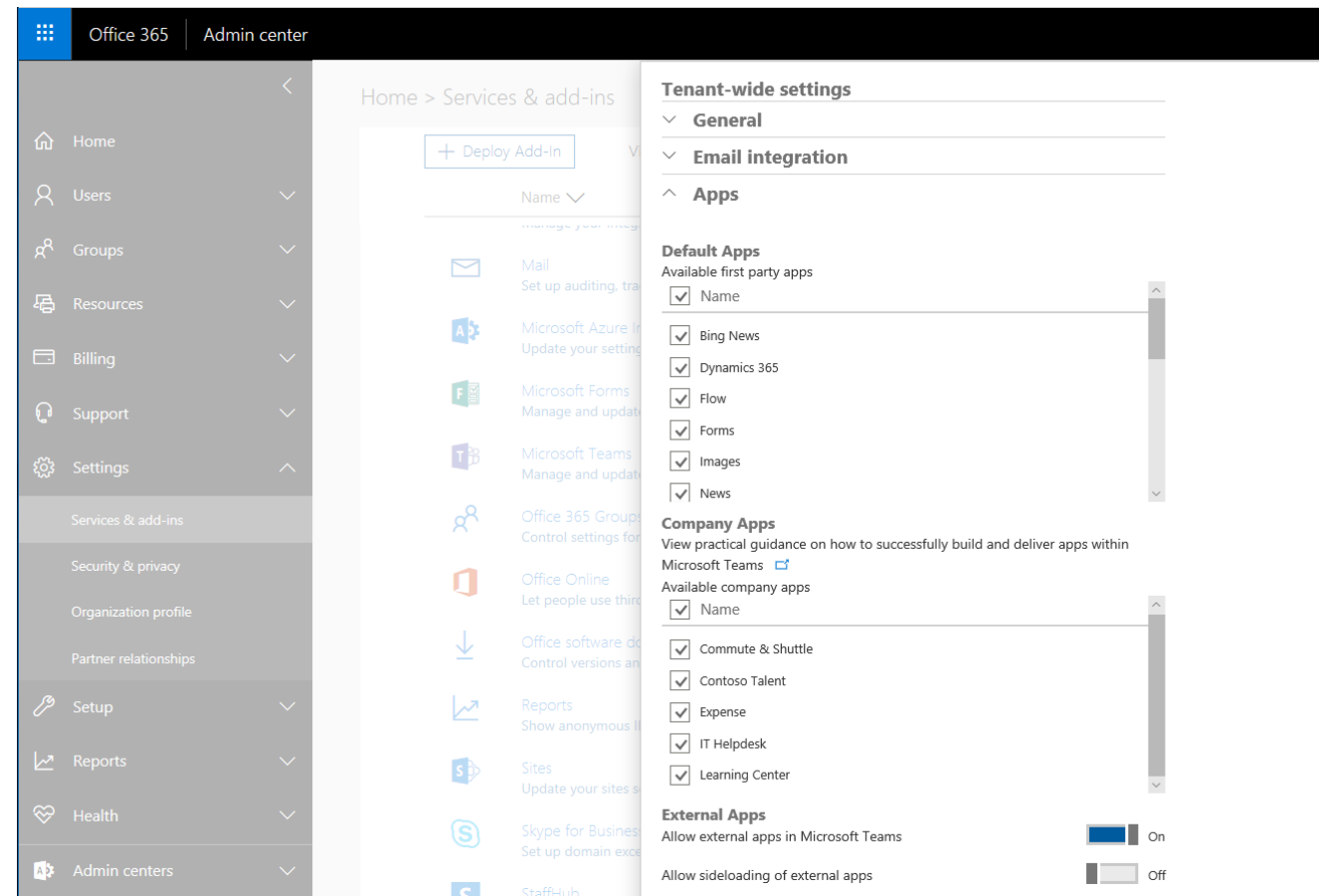
Publish apps in the Microsoft Teams Tenant Apps Catalog

1. Get a Teams app package
2. Go to the Tenant Apps Catalog
3. Add an app to the Tenant Apps Catalog
4. Update an app in the Tenant Apps Catalog



Use the Office 365 admin portal to manage the Tenant Apps Catalog

- If you have apps that need bug fixes, you can temporarily disable apps through the Office 365 admin portal.
- In addition to previous settings, there is now a section dedicated to your company's apps.
- You can choose which apps you want to enable or disable.



Grazie!

- Il materiale sarà online nei prossimi giorni su <http://www.communitydays.it>