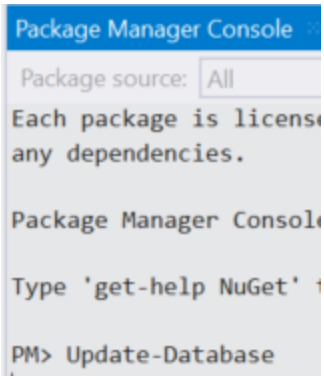
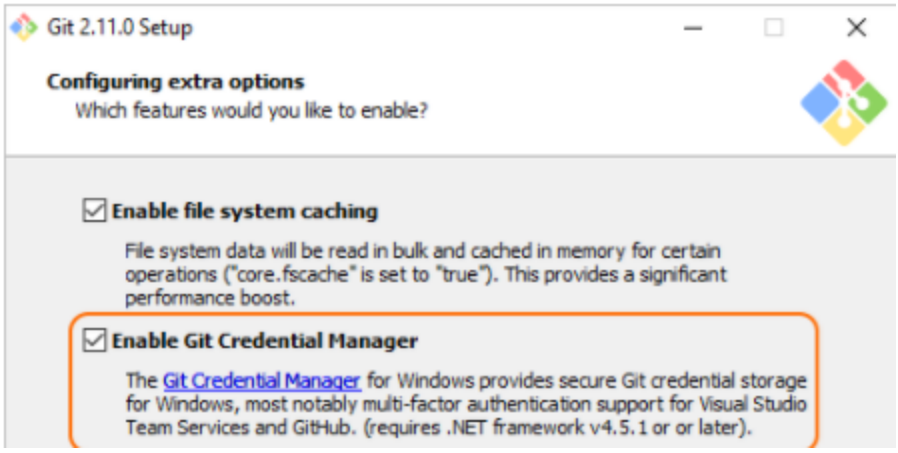
Development and maintenance

- **IDE**: **Visual Studio 2017 Community** (solution supports the latest update)
    - Main web app is a ASP.NET Core 2 web application targeting the full .NET framework 4.7 (**Need to select** that version when installing VS)
    - All the csproj files have been migrated to the newer csproj format that supports Nuget PackageReference even though not officially supported for .NET framework.
    - Using gulp with the Task Runner Explorer window: **Need to install** *Package Installer* extension with *Tools -> Extensions and Updates*.
    - Data access is done using Entity Framework Core 2 Code First
        - After changing entities you can run Add-Migration command in the *Package Manager Console* to generate a database migration for updating the database to reflect the changes,
        - Then run Update-Database to actually run the migration and update the database.

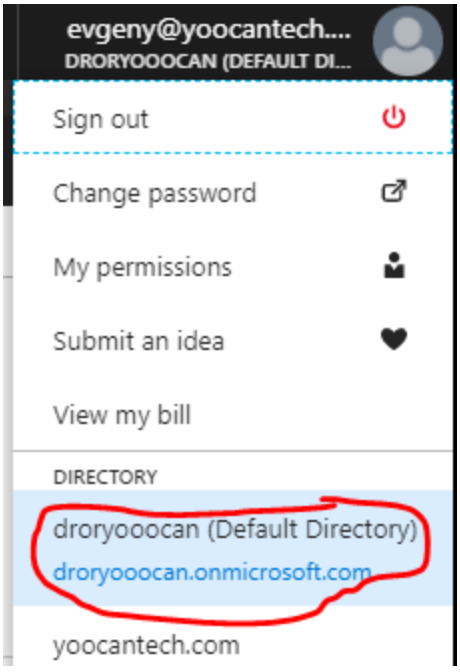


            - To update the production database run $env:ASPNETCORE_ENVIRONMENT='Production' before running Update-Database. **Important: restore the environment after finishing updating with *$env:ASPNETCORE_ENVIRONMENT='Development'***
- **Source control**:

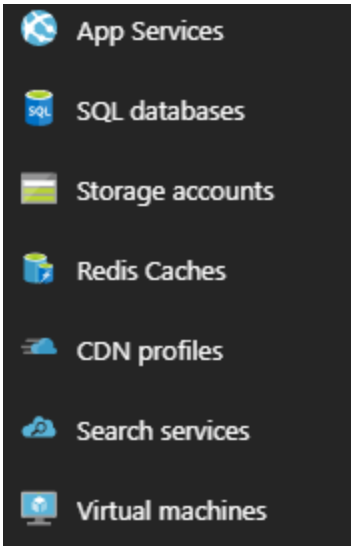
- Should install git with git credential manager option.



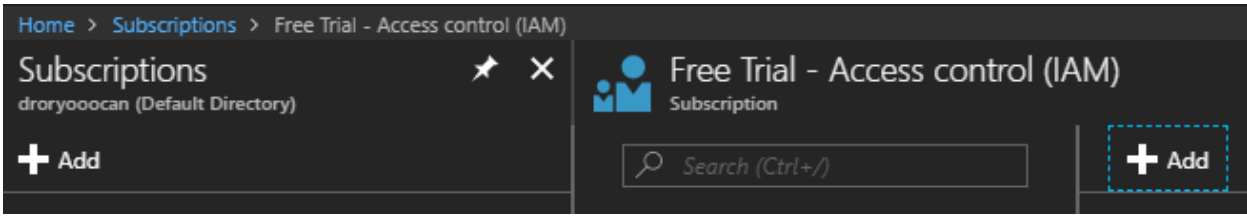
  - The code is in a VSTS private repository (https://yoocan.visualstudio.com/_git/yoocan, clone button is available at the top right corner)
  - An obsolete project (Alto, used to be at https://altolife.com) is here: https://yoocan.visualstudio.com/yoocan/_git/Alto.
  - To add new users to the project go to https://yoocan.visualstudio.com/_admin/_users and click on *+ Add new users*
- **Infrastructure**: Azure
  - Need to select droryooocan directory:



- Portal: https://portal.azure.com Most useful menu items:



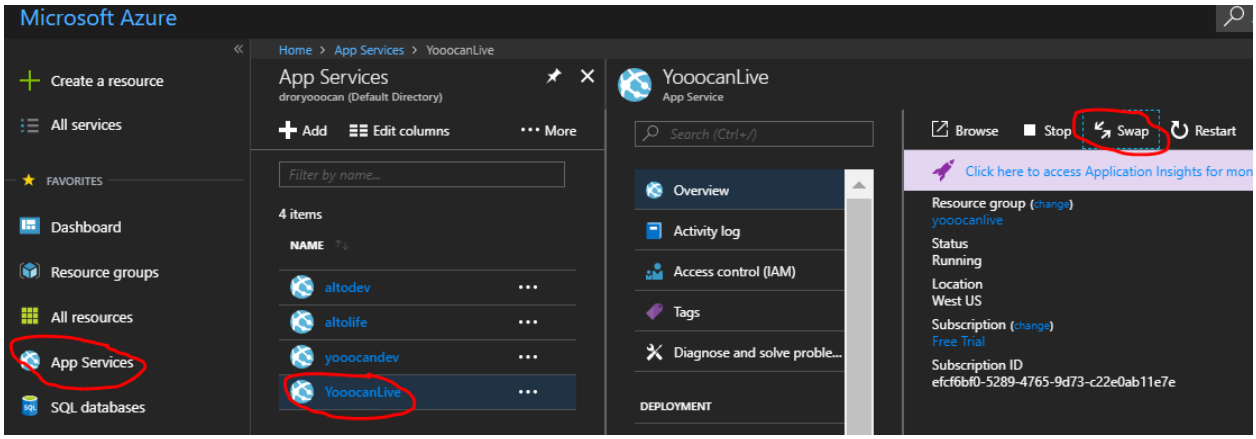
- Support: as long as the company is in the Microsoft program, to go along with the free Azure usage there's premium support available. To open a request, in the portal click on "Help + support" and then on "+ New support request".
- To manage users and permissions go to *Subscriptions -> Free Trial -> Access Control*

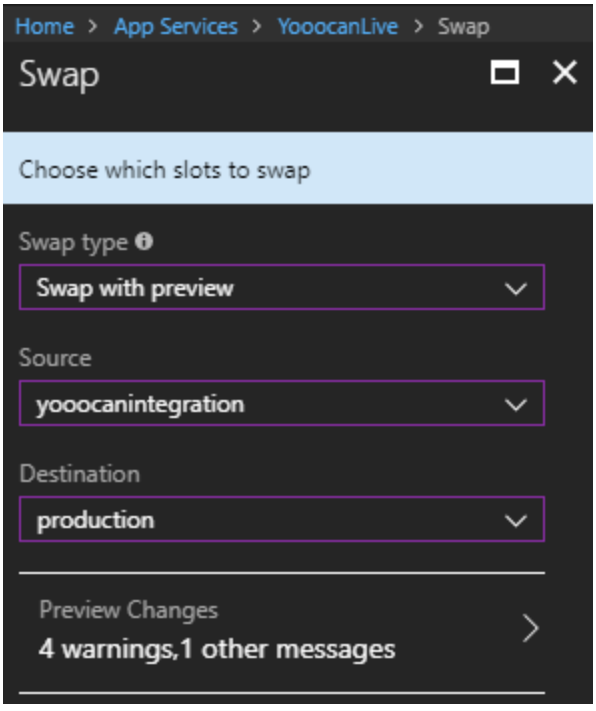


- Kudu (has some diagnostic capabilities, such as viewing the virtual file system of the Web App servers): https://yooocanlive.scm.azurewebsites.net

- **Web App**: https://yoocanfind.com is called YooocanLive, the development server (connected to the development database) is called yooocandev (https://yooocandev.azurewebsites.net). Deployment is done using right click on the Web project and selecting "publish". In order to avoid downtime during production deployment, **never** deploy directly to YooocanLive but rather deploy to yooocanlive-yooocanintegration (https://yooocanlive-yooocanintegration.azurewebsites.net) which is a deployment slot under YooocanLive and then use the "Swap with preview" (Swap) feature on Azure.

- **Swap with preview (part 1):**

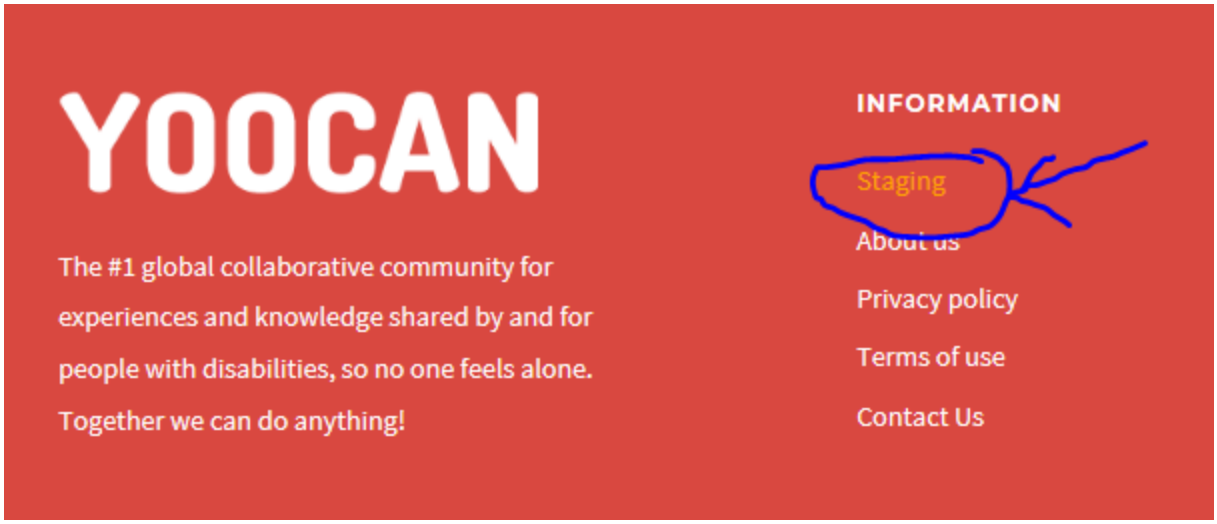




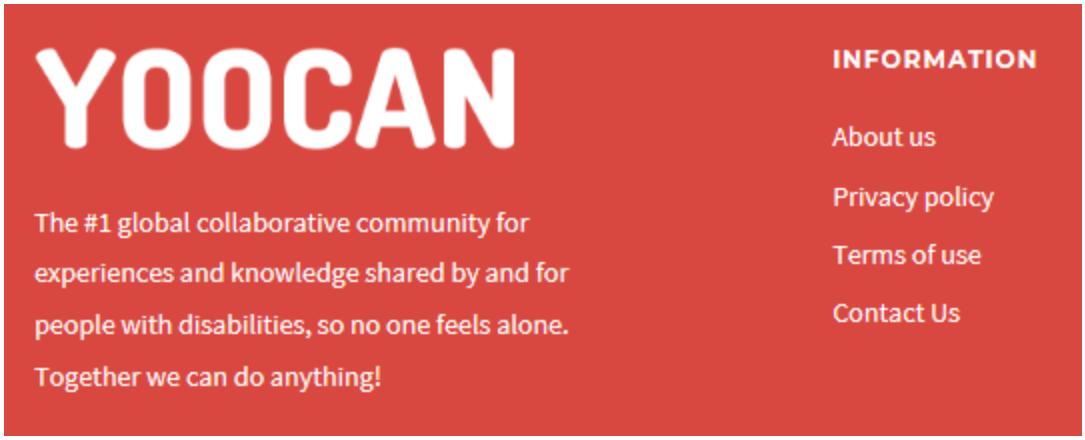
Warm-Up:

After Swap with preview we need to warm-up the integration slot with the production configuration by accessing https://yooocanlive-yooocanintegration.azurewebsites.net

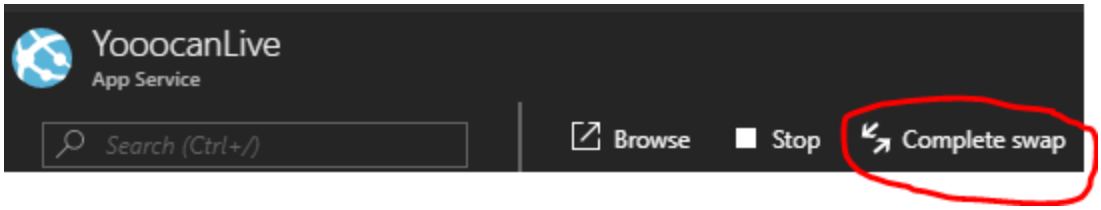
with the browser.
Initial state (the footer):

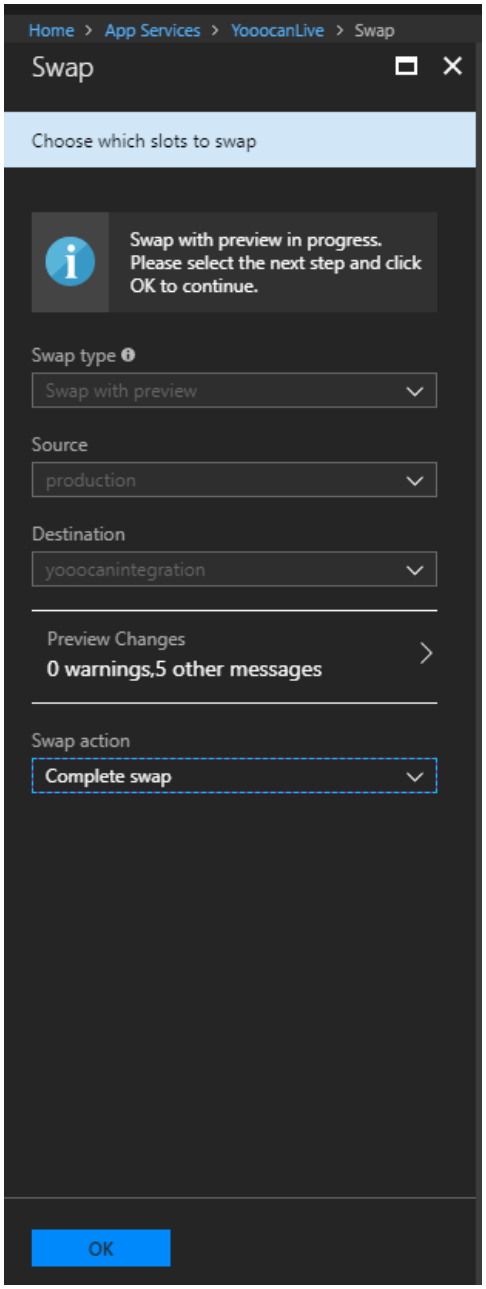


Needed state (after warm-up):



Complete swap:





- It's possible to deploy some single files directly to YooocanLive without downtime: usually cshtml (css files are slightly harder to deploy directly).

- **Database**: Azure SQL Server
    - Management tool: SQL Server Management Studio 2017
    - Although not the best practice, connection strings are located in the appsettings files, probably also accessible in the azure portal.
- **WebJobs**: WebJobs are one of the Azure ways of running background tasks. Currently there are 2 Web Jobs:
    - Preemptively resizing the images of the new stories so their initial load time is faster (otherwise images are resized on the first request, using ImageController.Get method)
    - Updating the images of the Amazon products, according to the terms of updating them at least every 24 hours. Seq filter to view this job's logs: *SourceContext == "Yooocan.Logic.Amazon.AmazonLogic"*

  The WebJobs are in the solution and you can manage them using the Azure portal and kudu: https://yooocanlive.scm.azurewebsites.net/azurejobs/#/functions
- **Logging:** using Seq hosted on an Azure VM (**need to install** Seq locally in order to view logs of the local application), all of the log messages are dumped there https://www.yoocanfind.com/seqlog/ (There's a reverse proxy defined on yoocanfind.com using the instruction from here, you can see the Url Rewrite in the web.config)
    - Important messages (severity Error and worse from production) are forwarded to a slack channel named *bugs* where it's possible to set notifications and get real time updates. Also for similar kind of errors an email is sent from Azure (to Dror too).
- **Search:** The search on the site is implemented using Azure Search. The indexers are configured to update the index only if the LastUpdateDate column changed, so it's important to update it with LastUpdateDate = getutcdate() every time a record that appears on the search changed (Stories, Products, ServiceProviders, Benefits).
- **DNS:** All of you domains are registered on GoDaddy.com, Dror has the account details and he gets the 2FA SMS messages.
    - There are few domains like altolife.com that are redirected to our main domain yoocanfind.com. All of them are listed under custom domains in azure. The redirects are implemented using Url Rewrite rules in the web.config.
    - Few places in the code and in the web.config use the current domain yoocanfind.com as a literal string. If the domain changes, it should be easy to replace the references with the new domain string.
- **Third party integrations:**
    - **Facebook**: OAuth login, need to give admin permissions to the next developer.
    - **Google**: need to give admin permissions to the next developer.
        - OAuth login
        - Google Maps
        - Google search console: no in-app integration, just used to debug google search engine indexing.
        - Recaptcha: on contacting service providers form (Index.cshtml).

        - Google Analytics: mostly sending events from the client side, but some server side too using *GoogleAnalyticsLogic*.
    - **PayPal**: used to process payments for subscriptions on Alto, user name is info@yoocantech.com.
    - **Amazon**: https://yoocanfind.com/Admin/AddAmazonProducts to add Amazon products, tag is yoocan-20, user name is info@yoocantech.com.
    - **SendGrid**: used to send mail from the App, username is: yooocan
    - **iFlyChat**: chat in the App, user name is: yoocan
    - **Cloudinary:** used to generate thumbnails on story edit page, user name is: evgeny@yoocantech.com. We are on a free package and every once in a while a cleanup is needed, an email is sent to the user name's email when the threshold is close.

Useful tools

- **Redis Desktop Manager**: Useful for managing the redis servers.
- **Azure Storage Explorer**: Managing Azure storage