# Show your children or friends how to create their first web site!

Lego robots, Scratch, Microsoft Kodu – all these tools help kids to take their first steps in software development. Now we can add Microsoft Azure to the list and it’s available to all kids **for free**. Using Azure your children can create web sites quickly and share their web sites with friends, teachers and anyone with access to the Internet.

If your child is in Elementary school – they can create a web site based on existing templates and without any coding. Later you can extend the web site adding new functionality and grow your coding experience. If your child is in High school – they can create more complex solutions using JavaScript, HTML and other web technologies.

With this series of tutorials you will learn how to create your first web site with your children or just pass along the tutorials to them and see what they create

Before starting, I want to point your attention to two things:

**#1** You will need a DreamSpark account. To create your account you must prove you are a student. The easiest way to provide proof of your student status is to send an electronic copy of a report card from school (you can just take a picture of it with your phone) and follow the “[How do I get my free DreamSpark account](http://blogs.msdn.com/b/cdndevs/archive/2015/07/10/how-does-a-student-get-a-dreamspark-account-for-free-software-and-azure.aspx)” instructions to start the verification process. Because reviewing a picture of a report card is a manual process, it can take up to 7 days to be verified, so you will want to get that sorted out before you sit down to code.

**#2** Why not create a video or a short post about your first experience in Azure, share your work and I will publish the best stories in my next posts. It’s always great to share what you learn with others so they can learn with you!

In this post I will share three tutorials which you can use for kids who visit Elementary as well as High schools.

## Tutorial #1. How to create your free student DreamSpark Azure account

Before we start coding we need to prepare everything so we can create and publish our web site to Microsoft Azure.

Wondering what is Microsoft Azure? You already know how to visit web sites using a browser. In general, a web site is made up of a set of pages/documents which contain instructions that tell the browser how to present content to the person viewing the web site. Developers use a programming language such as JavaScript and HTML to create these pages. But, in order for others to be able to view your web site, you need to publish those pages on a server that can be accessed over the Internet.

You can use your home computer as a server to host the web site but there are several issues:

* Your website may be slow to load. Your Internet at home is designed to download and view other people’s websites, not to distribute files on your computer to thousands of users around the World
* In order to make files on your computer available over the Internet you need to have a good knowledge of static IP addresses, web servers etc.
* If you turn off the computer, have internet connectivity issues, or hackers attack you – your web site will not be available for others to view

That’s why, when you are ready to publish your site to the Internet it is simplest and safest to find a company which provides servers for professional hosting. These companies provide space on their own servers and manage the internet connection and tools for publishing and managing your web sites.

Microsoft has the biggest number of servers of any company around the World. These servers are located in datacenters and you can access these resources for free to publish your first website. Microsoft provides the resources to publish websites, to host websites, to monitor your websites using a variety of technologies. They also support a number of other services useful for coders as well. All these resources, technologies, and tools together form a ready to use platform called Microsoft Azure.

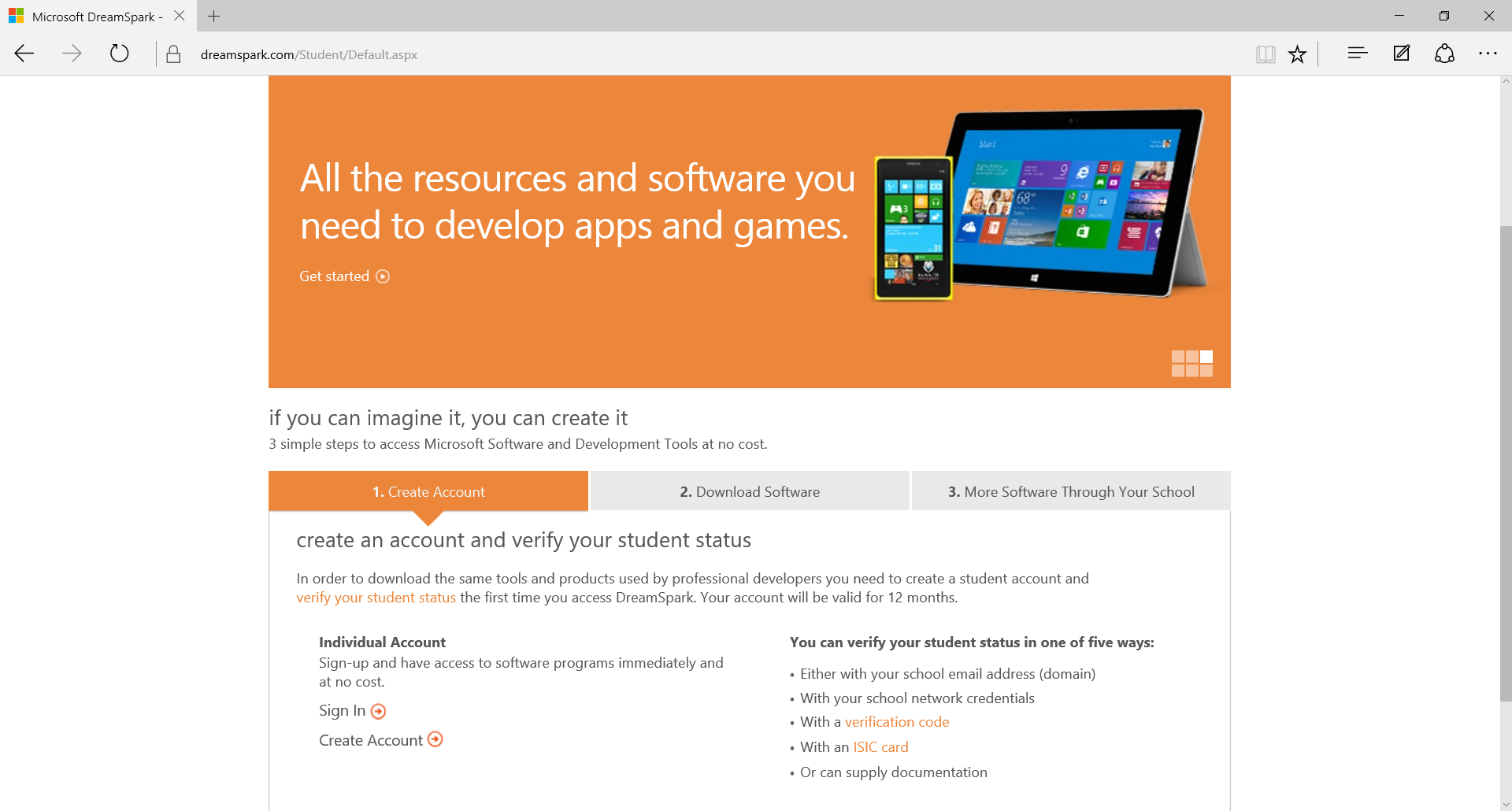
In order to get access to servers in Microsoft Azure, you need to create an account. Thanks to accounts Microsoft Azure will be able to identify you. Usually, any account can be defined as a set of properties, and depending on a situation, this set can contain different number of properties with information there. For example, your parents have passports and driver licenses, which allow to identify them not just by their names but photos, unique numbers there etc. When you visit the school, your teacher can identify you just by looking at you. Of course, it’s not easy in case of twins☺ So in order to pass identification in Azure you need to create an account as well. Usually, it’s your login (name of the account) and password (a secret word for identification). Thanks to the account, Microsoft Azure will be able to find web sites which belong to you and allows access to tools which help manage your sites.

So, in the first step we need to spend some time creating our own accounts and getting access to Azure.

**Step 1. Create your DreamSpark account**

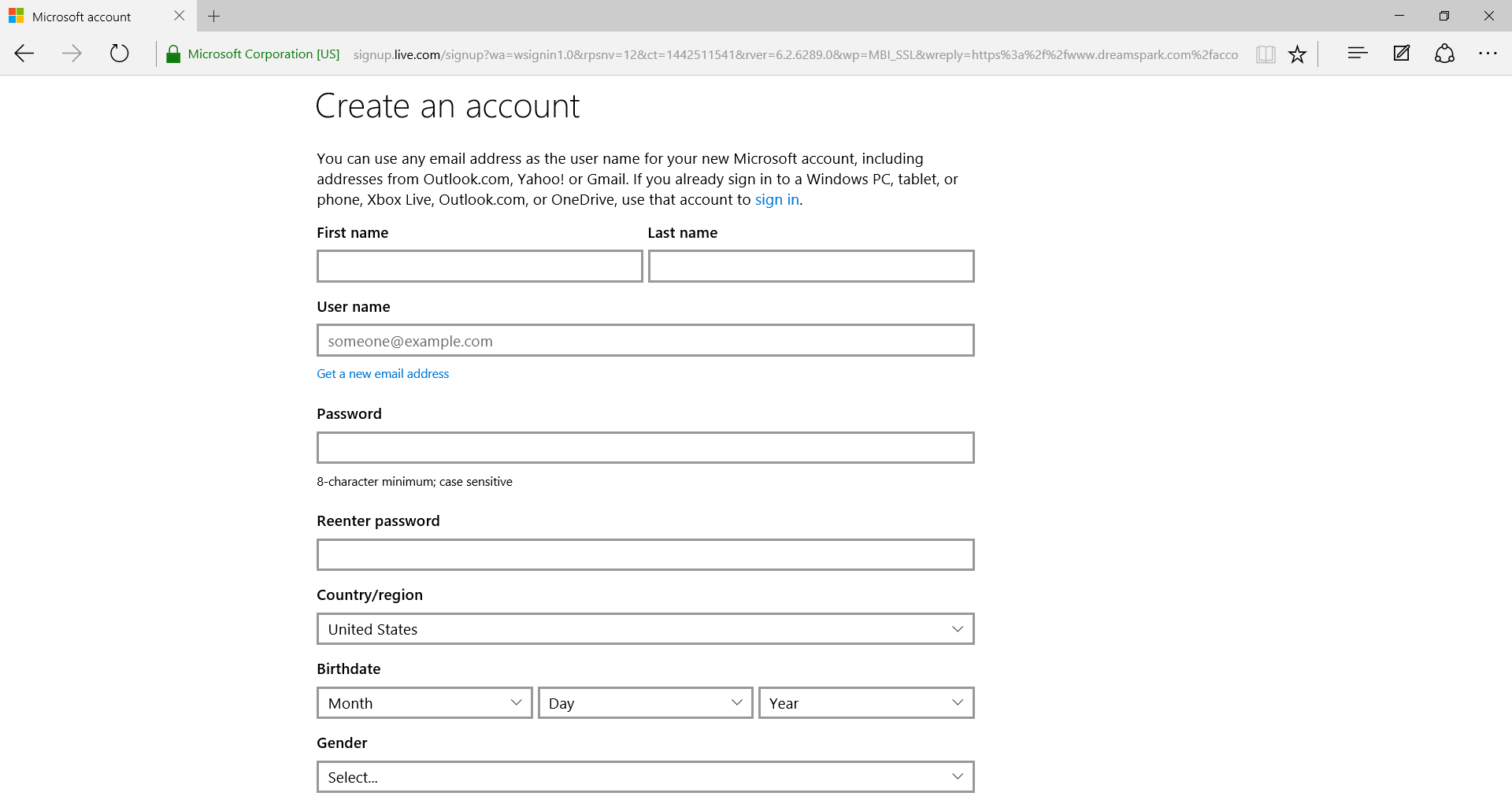
To create your own DreamSpark Azure account, visit <http://www.dreamspark.com>.

Select the **Students** tab



A DreamSpark account will give you access to Microsoft Azure, the ability to download tools for developers and access to products such as Windows Server, SQL Server and more. Select the **Create Account** button, and then select **Create Account** and **Sign up Now** on the next page.

Fill out the fields on the account creation form such as name, password, country, birthday and gender



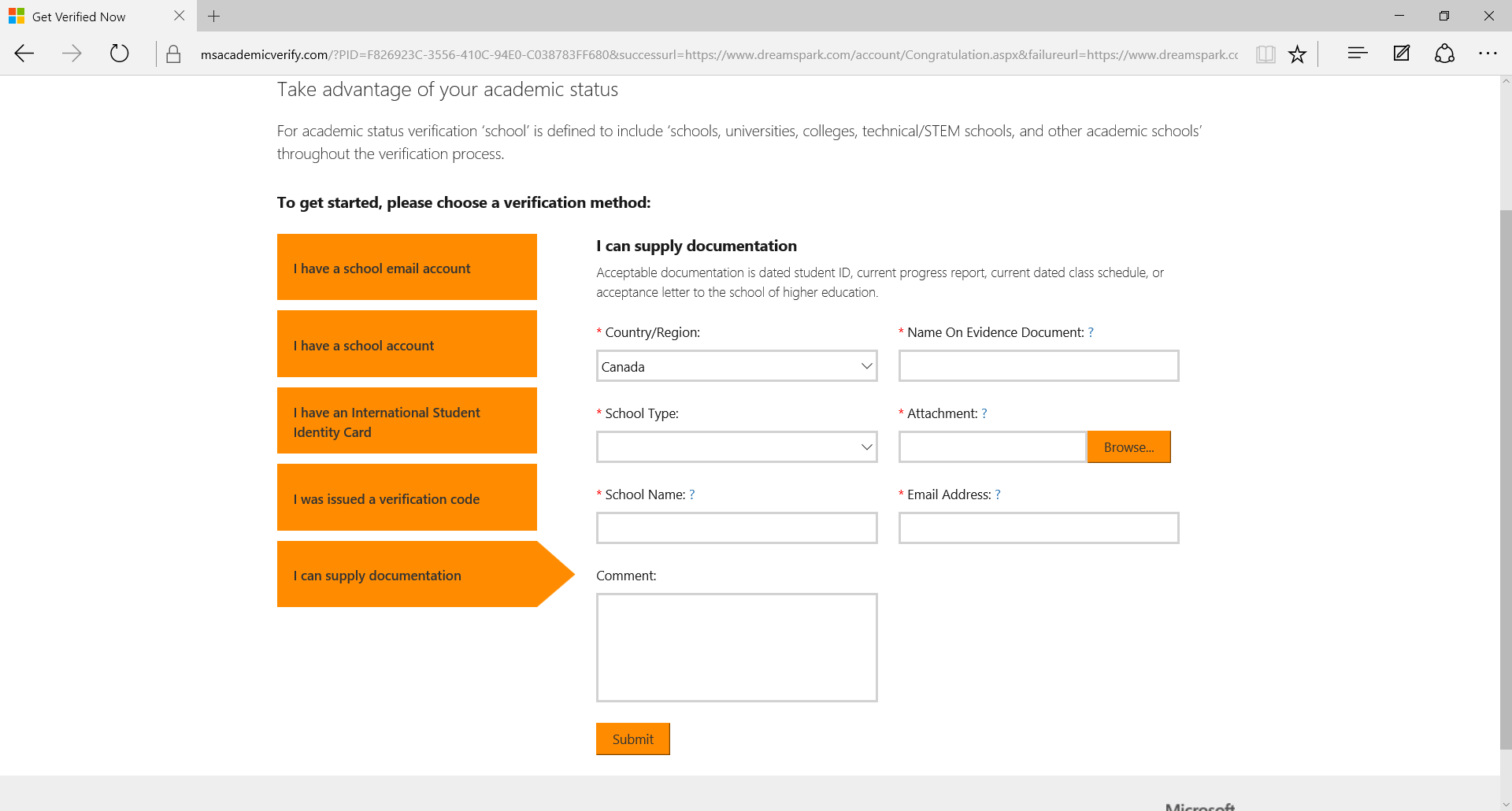
You do not need to provide any address or credit card information

To create an account you need to specify an email address. If you don’t have one, you can use this opportunity to create one. Just select **Get a new email address** on the page and create your own address in the outlook.com domain.

Once you create an account, the browser will redirect you back to the DreamSpark page. Once you arrive at this page, confirm the country, select preferred communication options and click the **Continue to verify** button.



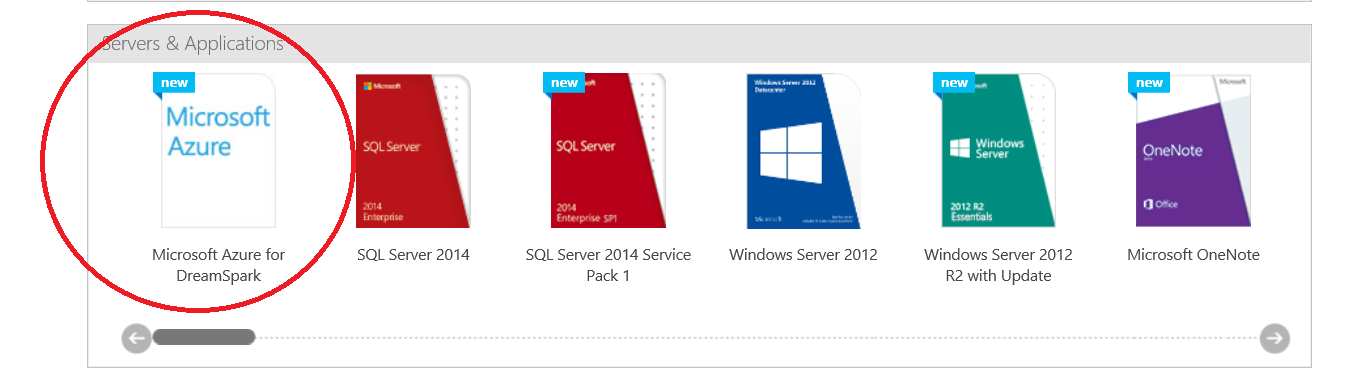
The last step is the most complicated because you need to prove you are a student. Dreamspark.com provides great resources but only for students, so you need to provide some proof of your student status. There are different ways to do it: Your teacher can register the school in the DreamSpark program and you can use your school email; A Microsoft employee can provide you with a verification code;You can use an ISIC (International Student Identity Card). If none of those work, you can provide a copy of a document that proves you are a student:



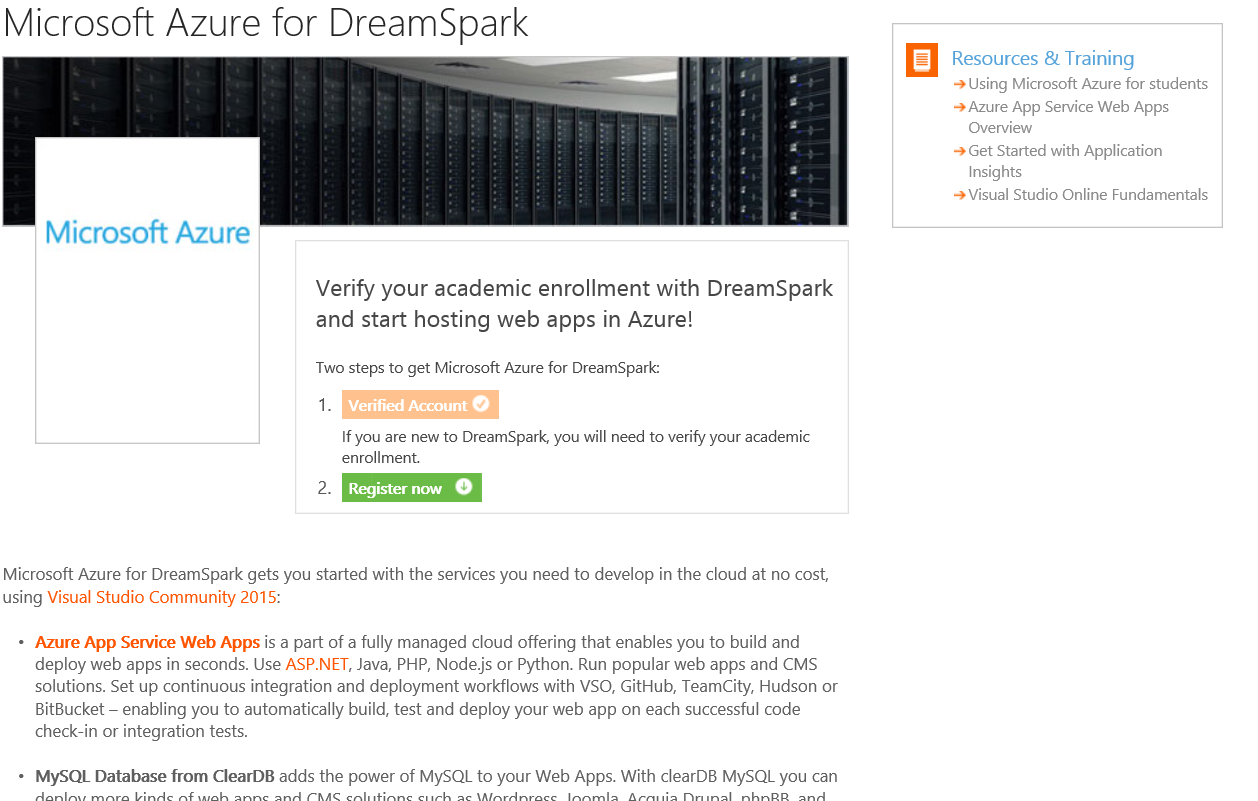
Use your phone to take a picture of your report card or student ID card and submit it using the form shown above. This verification process takes the longest because it must be verified manually. It will take 3-7 days to verify your account. The other verification methods will verify within minutes.

**Step 2. Activate your DreamSpark Azure benefits**

Now that you have your DreamSpark account. You can get your free Azure access. Visit [www.dreamspark.com](http://www.dreamspark.com), and sign in with your account. Select the **Student** tab and select **Software catalog**. The **Software catalog** is where you get access to lots of free software. To activate the Azure benefit, select **Microsoft Azure for DreamSpark**.

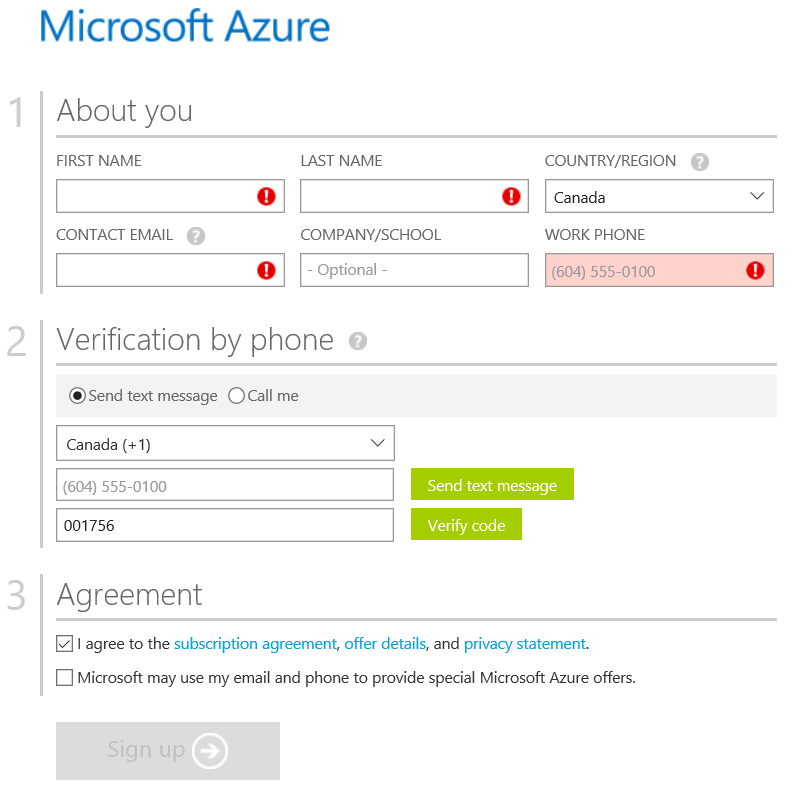


The Microsoft Azure DreamSpark page lists the Azure features you have available for free as a student



Click the **Register now** button to sign up for your Azure benefit.

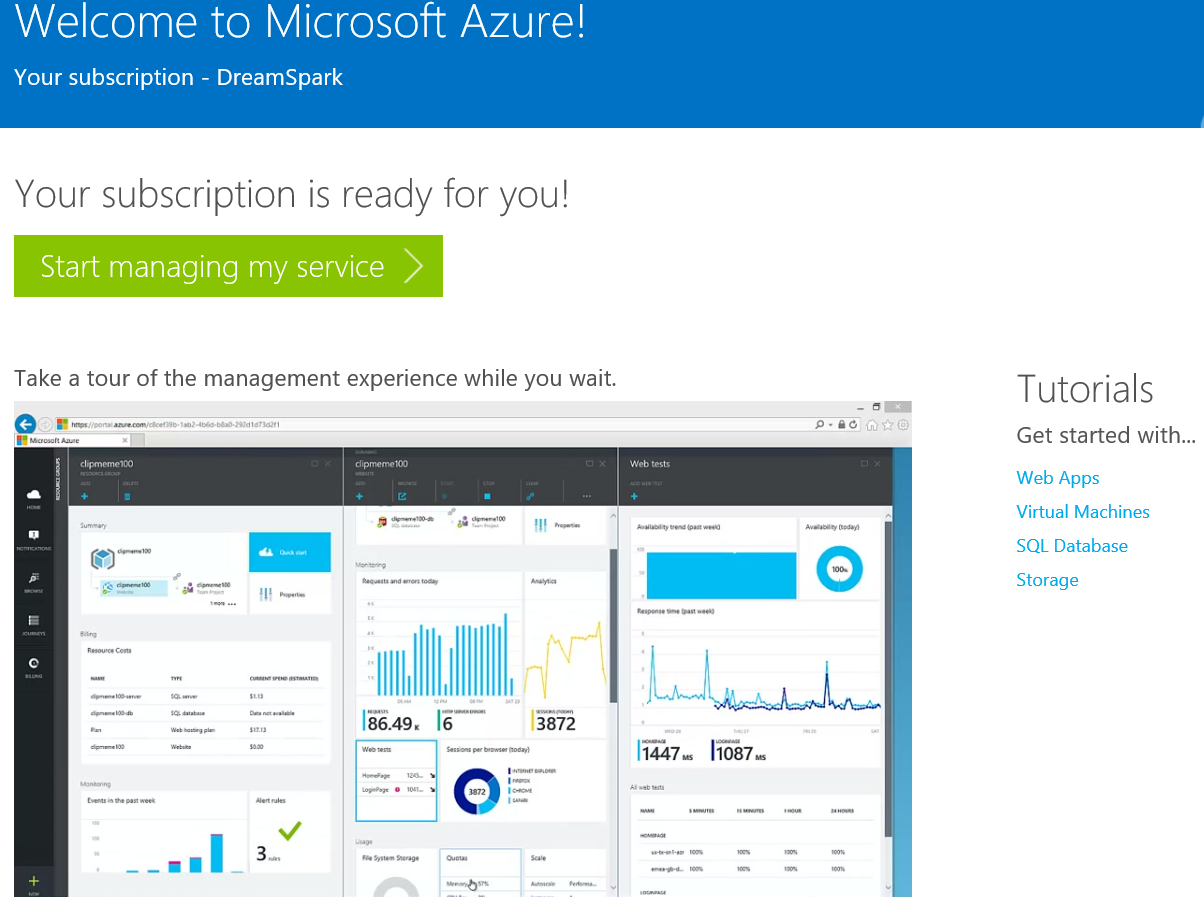
The Azure activation form will be prefilled by your data form your DreamSpark account. You will need access to a phone to complete the “**Verification by phone**”



Enter your phone number. If you can receive text messages, click **Send text** **message** button to receive a short text message with verification code, enter this code to the next field and click **Verify code**. If you cannot receive text messages select the **Call me** radio button, enter your phone number and select **Call** to receive an automated phone call which will provide you with the verification code. Enter the code into the next field and click **Verify code**.

Wait until the Sign up button changes from grey to green. Then click the **Sign up** button.

Congratulations your DreamSpark and Azure accounts are ready to go!



You now have access to the management panel. In the next tutorial, I will show how to deploy your first web site. Trust me that is going to be easier than creating your account!

## Tutorial #2. How to publish your first site using BlogEngine.NET

Open the Azure management portal, by going to <https://portal.azure.com>. Sign in with your DreamSpark/Azure account.

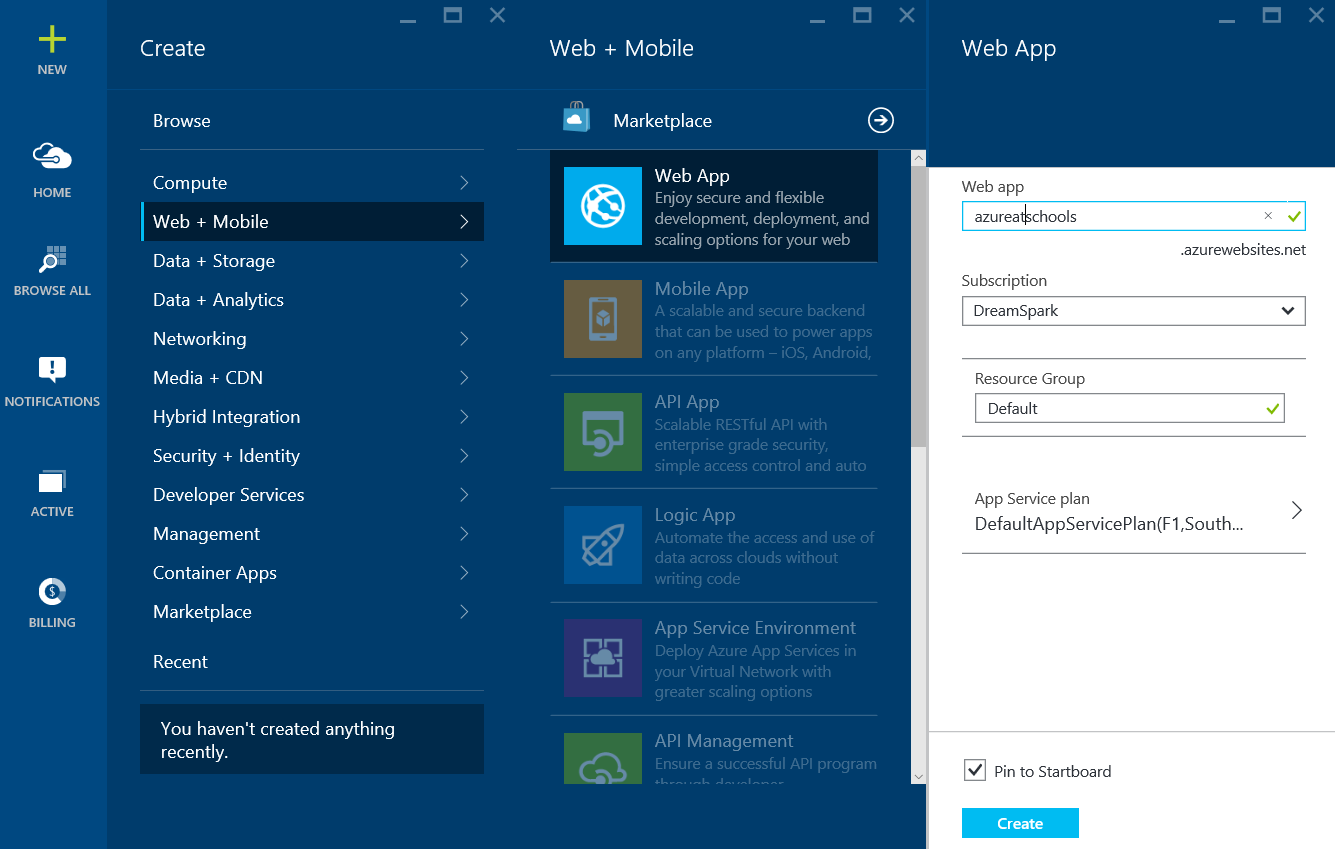
You will see the following page:



The Azure management portal gives you access to all the web sites that you have created and browse all available resources. But since we just created our account, we don’t have any sites to browse yet. So let’s create our first web site!

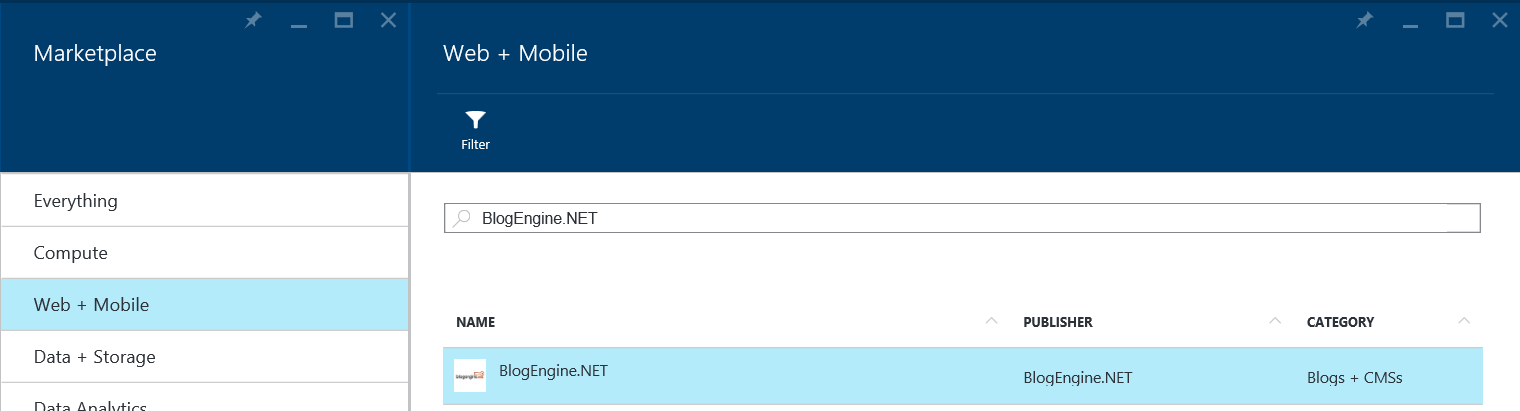
Select the **New** button at the top left corner of the page.

Using this one magic button developers can create lots of different things in Azure but we want to create a web site. Select **Web + Mobile** from the list of categories and then select **Web App** from the list.

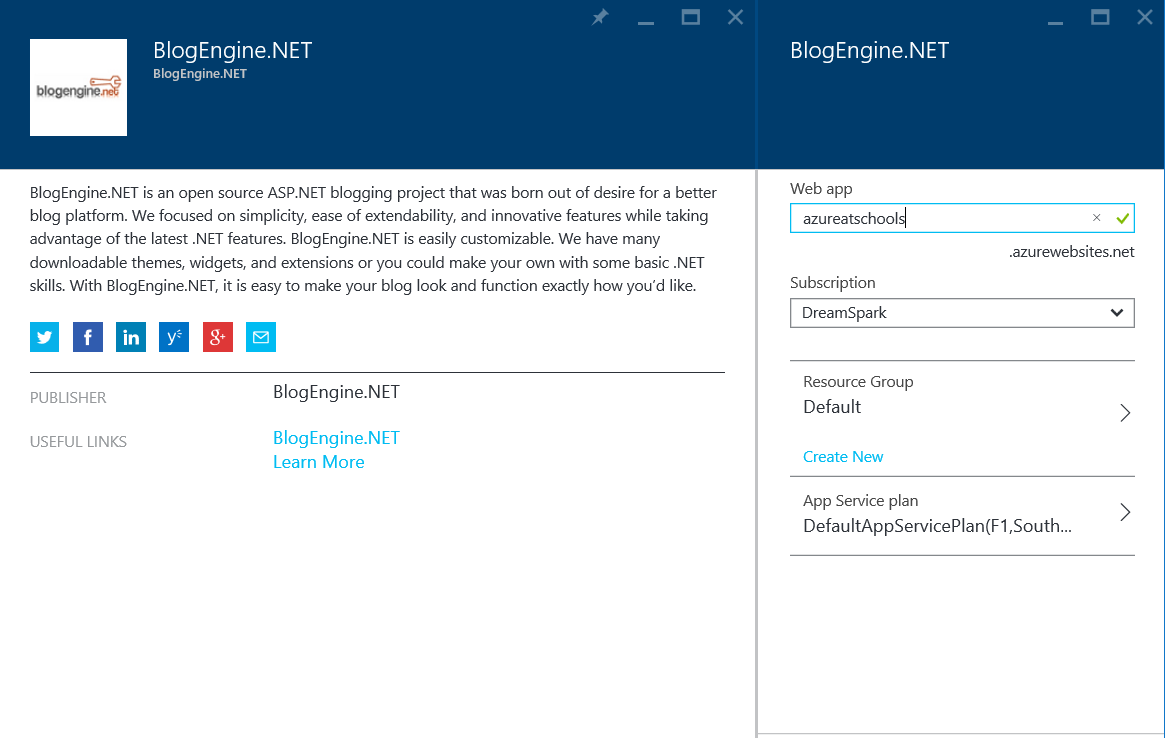


This window allows you to create a new web site from scratch. If you enter a name and click the **Create** button and your web site will be created. But, it will be an empty web site. This works great for developers who already have a website created and just want a place to host it. But we don’t have our own website yet. So, instead of the Web App tab, we will use **Marketplace** button below. The Marketplace gives you access to lots of ready to use solutions so you can publish your web site based on predefined templates.

Click on the **Marketplace** button, and you will see a list of different templates. We are going to use a popular blogging template called BlogEngine.NET. Just use the search field to find BlogEngine.NET in the list and click the **Create** button.

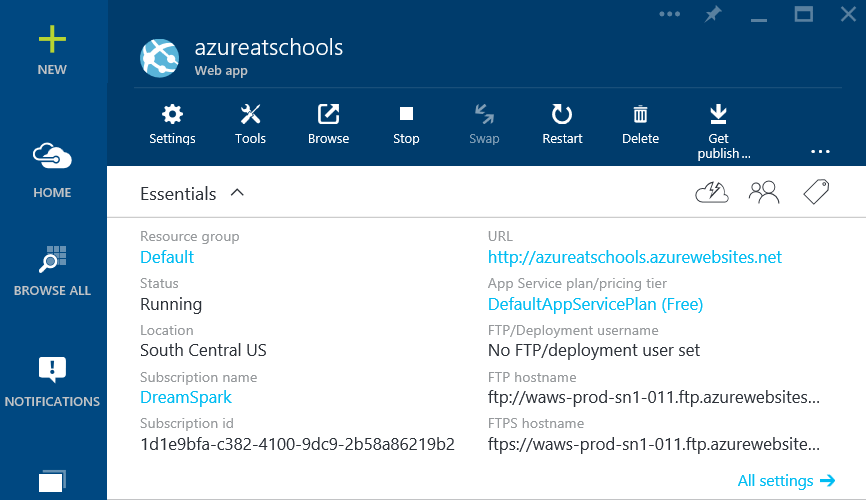


Now you have enter a name for your Web app. This will determine the URL you type in to visit your new website. The URL will be **<your Web App name>.azurewebsites.net** . You can share this URL with your friends and parents so they can visit your website as well.



Once you have entered a name select **Create** and then, using the **Notification** tab on the main page of the management portal you can follow the progress and see the status of your site.

Within a few minutes your site will be ready:

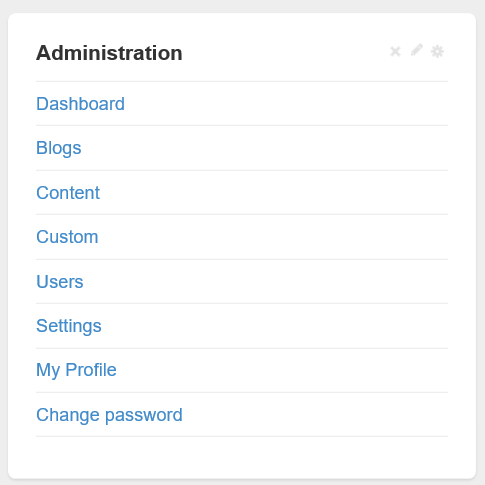


Congratulations you have just created a web site. But we need to set up our BlogEngine.NET account so we can start adding content to our site.

You can click the URL link on the panel to see your blog. For my website, the link is <http://azureatschools.azurewebsites.net>.

Click at the top, and enter login: **admin**, password: **admin**. BlogEngine.NET uses this as a default login and password. The first thing you need to do is change the default password before someone else does!

Once you log in you will see the Administrator widget. To change the password, select **Change password**



Enter the old password (admin) and provide a new one. Once that’s done you are preventing someone else from logging in and changing your website just by using the default login and password.

## Tutorial #3. How to configure the site and add some components from Web

In this tutorial you will learn how to setup your BlogEngine.NET blog

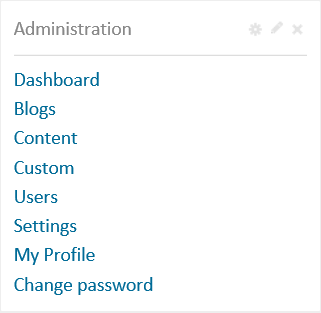
Go to the website you created in the previous tutorial. Log in using **admin** as a login and the password you set up in the previous tutorial.

Once you have logged into your site in administrative mode you can start editing lots of things there directly on the main page. Let’s have a look at the main components of the site and see how to change them.

The first component of your website is the header. The header includes the menu, the blog title, the blog description, the logo and links to social networks.

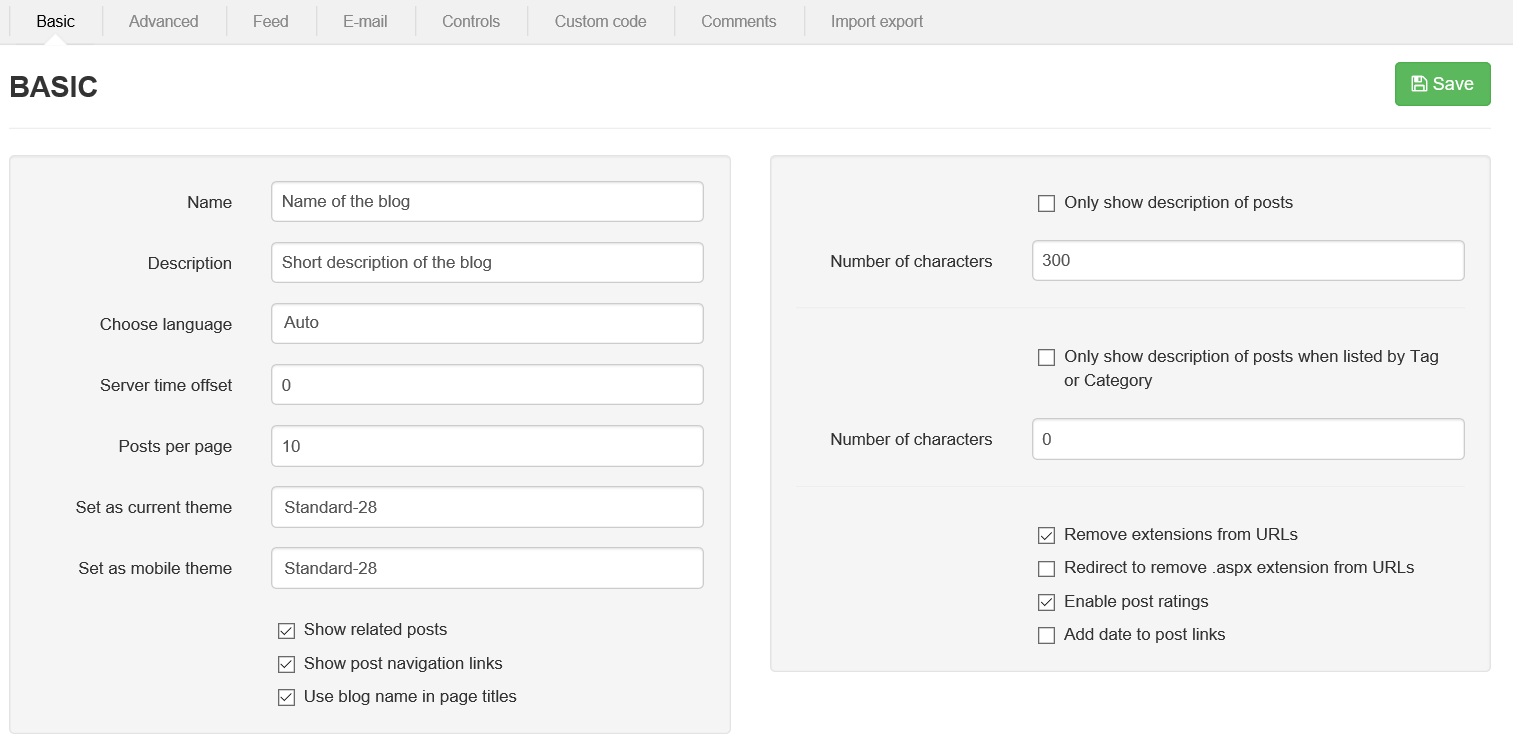


To start editing the header, select **Settings** from the administration menu. External users will not see this menu, this is a menu you can access because you logged in as the administrator.



On the Settings window you can change your blog name, blog description, and other settings that control how your website displays content.

For now, just change the Name and description. If you want, you can change the theme. The theme controls the color scheme, fonts and general design of your blog. Let’s change the theme to *Standard-28* and click **Save** before going to the main page of your blog.



BlogEngine.NET allows to view your website from any type of device: Tablets, laptops or phones. That’s why you are allowed to select two different themes: one for standard devices and one for mobile devices.

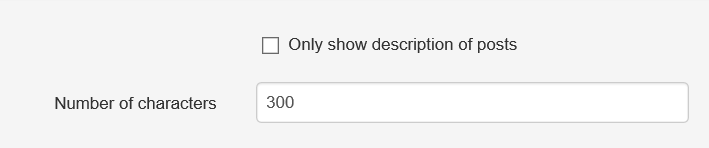
Once you change the theme, name and description, the appearance of your blog will change.



The next section of your blog’s main page are the actual blog posts. Typically, each post has a header, the date it was published, a link to provide comments on the post and most important the text of the blog post itself (the theme you selected in Settings can change exactly what information is displayed for each blog post)



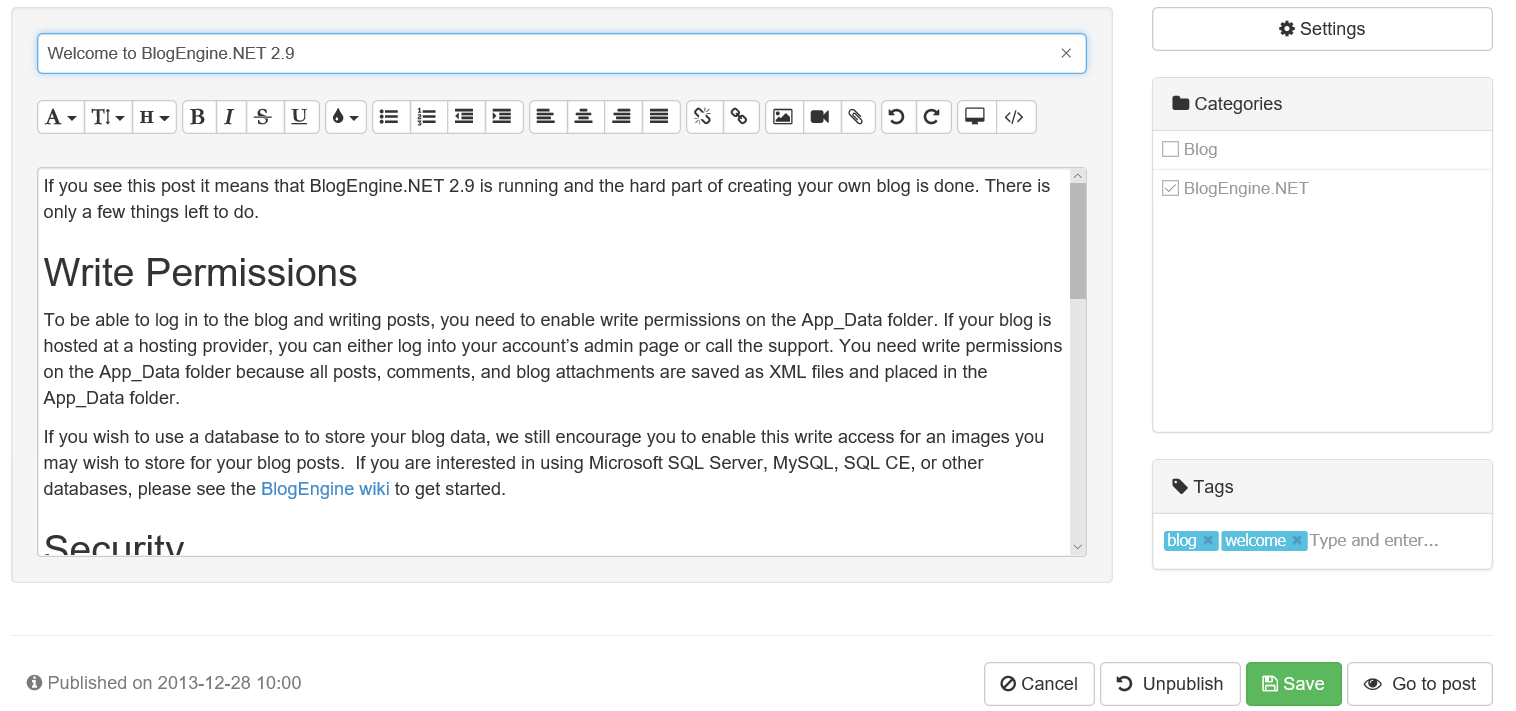
If you go back to **Settings**, there are settings that affect how each blog post is displayed.



By default, the page will display the entire post but if you have a long post with a lot of information, you can limit it to display only the first few sentences. For now, I recommend to displaying the entire text.

If you are on the main page of your blog and click on a specific blog post title, you will be brought to a page for that specific post. Each post has its own page. This is great for sharing, because if you want to share a particular post you can just share the link to the specific post page instead of the link to the main page. That way your friends don’t have to search through all your posts to find the specific post you want them to read.

Because you are logged in as the administrator, you can see two command options: *Delete* and *Edit*. If you click the **Delete** link you will delete the post permanently. So, be very careful with this button. If you want to hide or edit an existing post, click **Edit** and the browser will take you to the page editor



We don’t want our readers to see this default post. But instead of deleting it we are going to unpublish it. That way we can get the post back later if we need it. After you click **unpublish** you can go to the main page and find that the post is still there because you are the administrator. But your readers and visitors to your website will not see any posts that are unpublished. We will learn how to add new posts to our website in the next tutorial.

The next section of the page is the widget panel. Widgets are special independent controls. Each widget does something different: list the most popular posts, list the names of post authors, filter posts by tag or category, show a list of pages and so on. Depending on the theme you selected, your blog can have one or several widget panels. But all panels work the same way.

You can setup, move or delete a widget using the widget’s menu



The first button, that looks like a gear, allows you to move the widget from one panel to another, or to a different position inside a particular panel. Just click this button and you will see the list of possible locations. Try moving a widget around to get used to this functionality.

The second button, that looks like a pencil, allows you to edit the settings for each widget. Each widget has its own settings, so after clicking this button you can see the settings you can change for each different widget

The last button, that looks like an X, is the delete button you can use to remove the widget from the page.

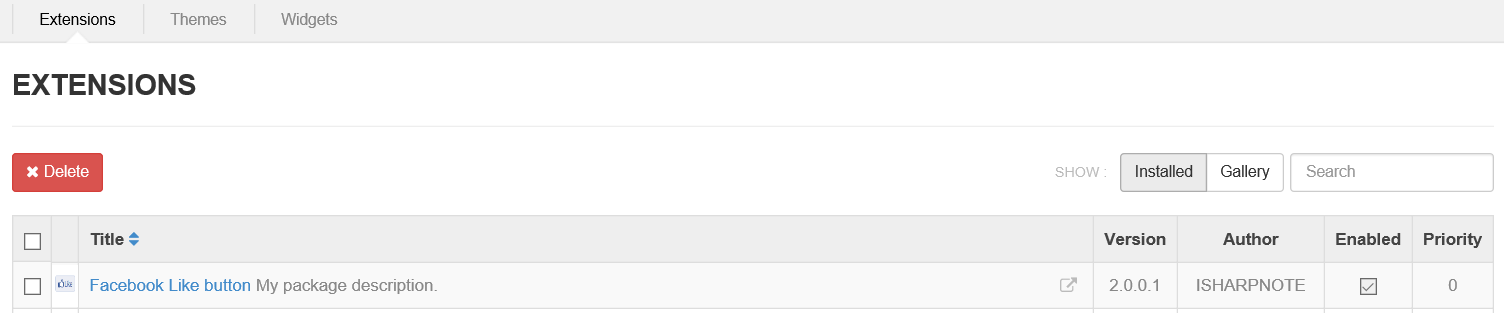
If you want to add new widgets, use the **Add** button at the end of each panel



The AuthorList widget is displayed by default. It displays a list of all the authors who have written blog posts on your website. Since you are likely to be the only author, this isn’t going to be very helpful to your readers so let’s remove the AuthorList widget. We can also remove the Page list widget. Let’s add the RecentPosts widget so visitors to your website can easily find your most recent news.

By default your site supports four themes and a fixed set of widgets. You can get additional widgets and themes. Click **Custom link** in the Administrator widget.

You will see three categories: extensions, widgets and themes. Each category shows the elements that are already installed. If you select Gallery you can find and install additional elements.



We’ve discussed widgets and themes, but what are extensions? Extensions allow you to extend the basic functionality of your site. For example, if you want to your readers to be able to Like your posts you can install the Facebook Like button extension. Select Extensions, if you don’t see the extension you want listed, select Gallery, search for the extension you want (for example: Facebook), select the Facebook Like button from the list and click install.



Congratulations, you’ve now started to set up the look and feel of your website, in the next tutorial we will learn how to start adding posts to our blog!

## Tutorial #4. How to publish new pages and posts

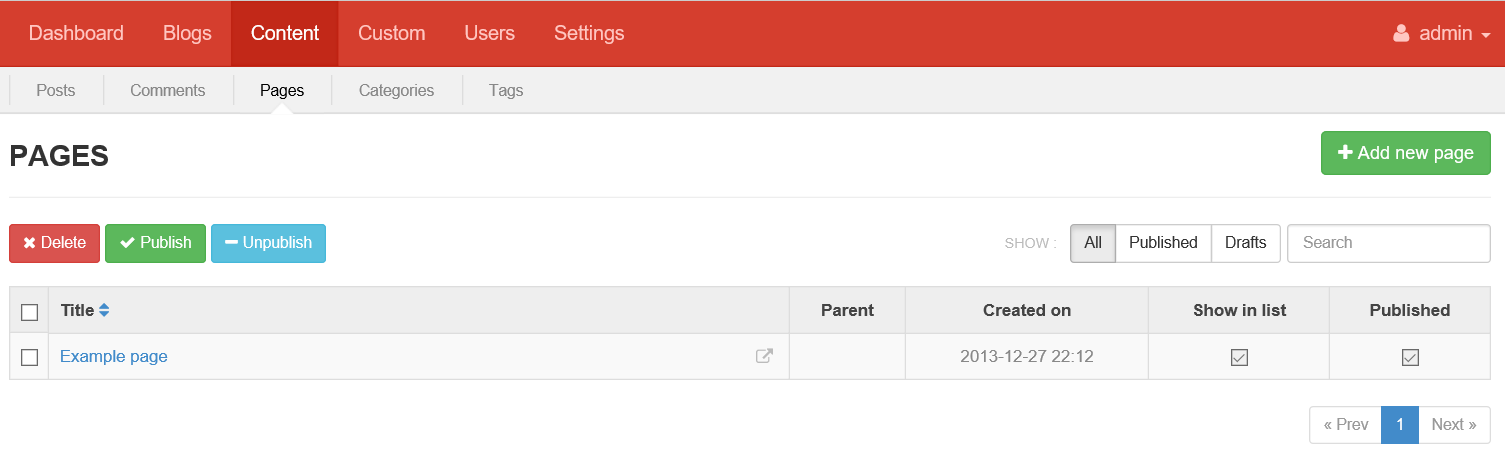
Okay, you’ve created your website, set up the look and feel now it’s time to add some great content!

You put content on your web page by adding posts. You can publish posts on just about anything that interest you. It’s more fun if it’s something you love. For example, you can publish posts about your projects, your travels, nature, animals, birds etc. – something you know and care about and want to share with others. Do be careful when you share information on the internet to NEVER publish personal information such as your age, school, address, phone number and so on.

Your blog can have multiple pages that contain information about you or your blog and should be. For example, you can publish a list of favorite things, links to your YouTube channel, etc.

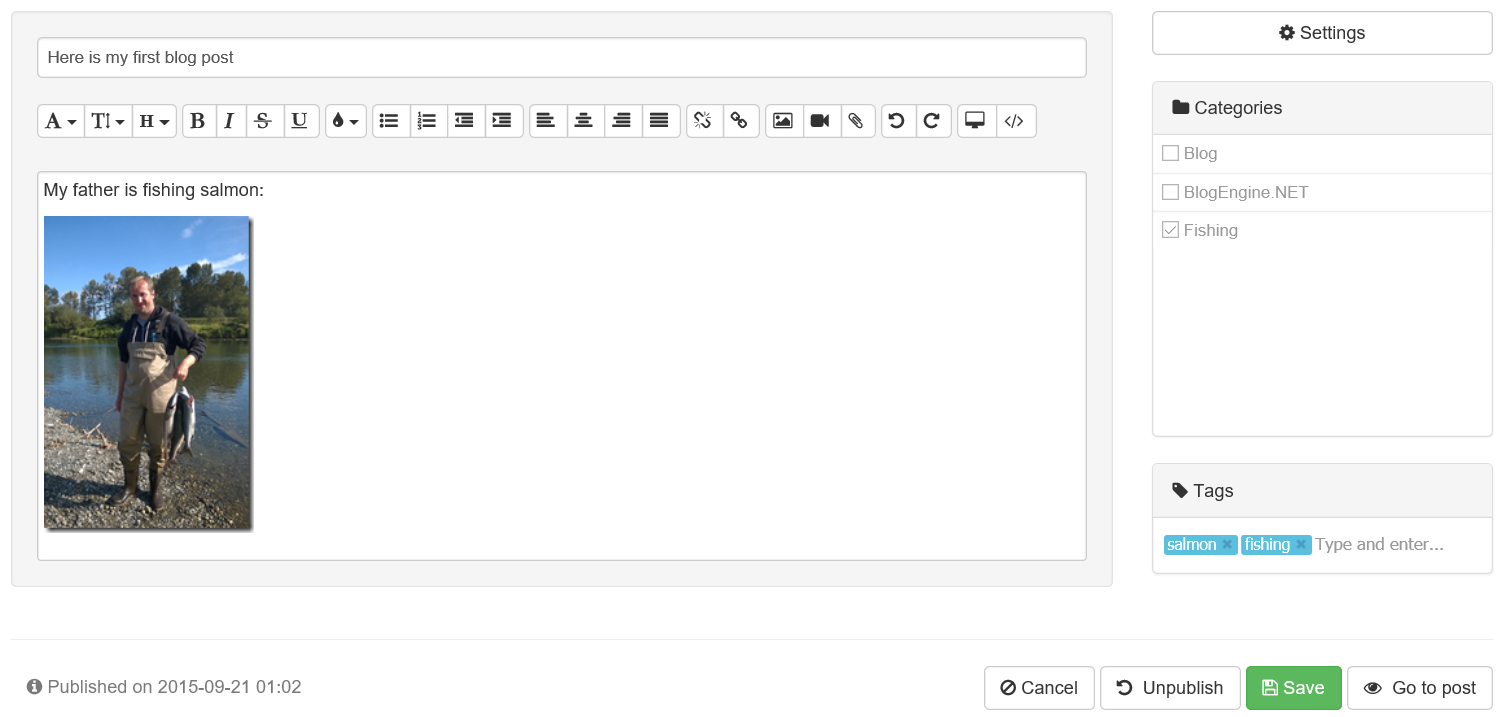
Let’s see how we add a new page and a new post to our blog.

Regardless of whether you are creating a new page or a new post, you need to go to your site, log in with your administrator password and select **Content** from the Administrator widget.



Select the **Posts** tab to edit a post, and the **Pages** tab to edit pages. On both the Pages and Posts tab, you will see a list of published and draft pages or posts. Drafts are not visible to the public but because you are the administrator, you can open it in any time to edit them and make changes. You can probably guess how to delete or unpublish any page or post: select the page or post from the list and click **Delete** or **Unpublish**. To create a new page or post, click **Add new page** or **Add new post** button (depending whether you are on the pages or posts tab) in the top right corner.

Let’s add our first post:

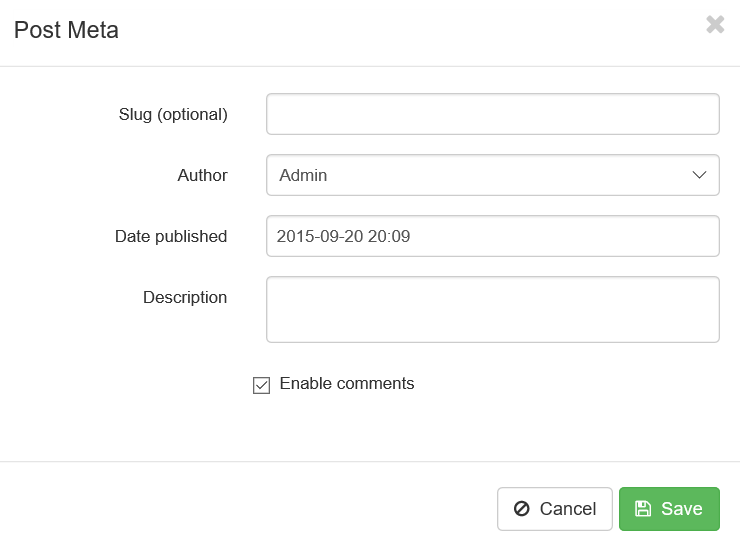


Select the **Posts** tab, and click the **Add new post** button.

The post contains a title and a body. Just type the text you want to display. There are lots of tools in the toolbar that allow to change the font, use colors, add hyperlinks and add images. After you type the text you want, you format it, save it as a draft or publish it right away. Remember, once you publish it people visiting your site can see it, so saving it as a draft is a great way to save your work until it is ready to publish.

The **</>** button on the toolbox allows to switch to HTML view. With the HTML view you can edit the code that is used by the browser to display the content. For example, HTML contains information about paragraphs, fonts, styles etc. You don’t have to edit the HTML, but if you start to learn HTML web development, you can edit the HTML here. There might be times when it is useful to add code in HTML view, for example, if you publish a video on YouTube you can right click on the video and choose “Copy Embed Code” this will give you an HTML code snippet you can paste that into the HTML code of your post and so that you can show your video YouTube video from inside your blog post.

Your post has settings as well which you can change with the Post editor by clicking the Settings button



Here you can pick a date when you want your post published, add a description to your entry and enable or disable comments to your post. (if you are wondering what a “slug” is you can find out [here](http://www.dailyblogtips.com/wordpress-post-slug/), it’s a trick you use to make it easier for sites like Bing and Google to find your blog post)

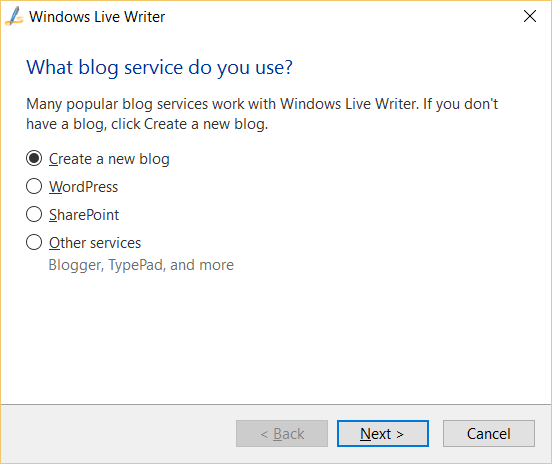
Finally, you can assign your post to one or several categories (you can make different categories for different posts :recipes, book reviews, cool places to visit, etc… this makes it easier for others to find the posts that interest them on your blog). Another way to help people find posts that interest them is to add tags. Tags should be keywords that describe the content of your post for example animal, museum, my cat, fishing, etc…

The page editor is similar to the post editor but you don’t have tags and categories. They are not necessary because there are links to pages on the main page, so they are easy to find.

**Bonus tip: Using Live Writer to write blog posts**

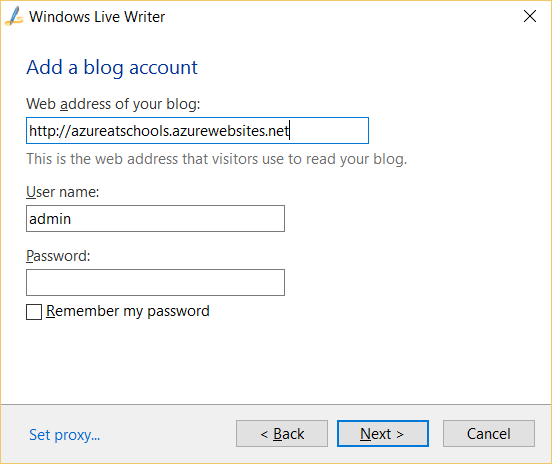
If you have a Windows computer, I would be remiss if I didn’t mention Windows Live Writer. Live Writer is a tool that is installed as part of [Windows Essentials](http://windows.microsoft.com/en-us/windows-live/essentials). You can use this tool to write the posts for your blog instead of using the BlogEngine.NET editor.

Once you install the tool, you add your blog:



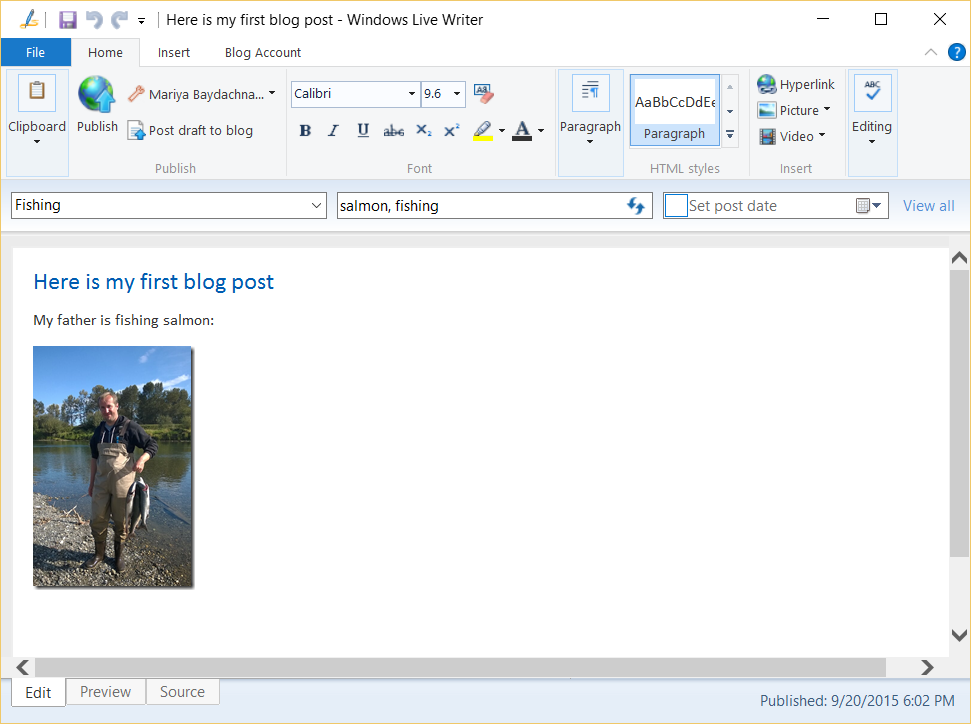
To add your blog, select **Other.**

**I**n the next window enter the address of your blog (<yourwebsitename>.azurewebsites.net), your BlogEngine.NET login (admin) and your password



If you want, Live Writer can download the blog’s theme for you, that makes the editor in Live Writer look more like the actual web page that will appear on your published post. But you don’t have to download the theme, you can simply click No.

Once you are done, you can use Live Writer to compose new posts



Live Writer contains more commands than the BlogEngine.NET web interface and if you spend some time you can find of extensions for the tool that allow you to publish code, videos from YouTube, formulas etc.

When you are finished composing the post in Live Writer, click the **Publish** button. Later, if you want to modify the post, you can open it, modify it, and then click **Publish** again – Live Writer is clever enough to replace the original post with the edited one.

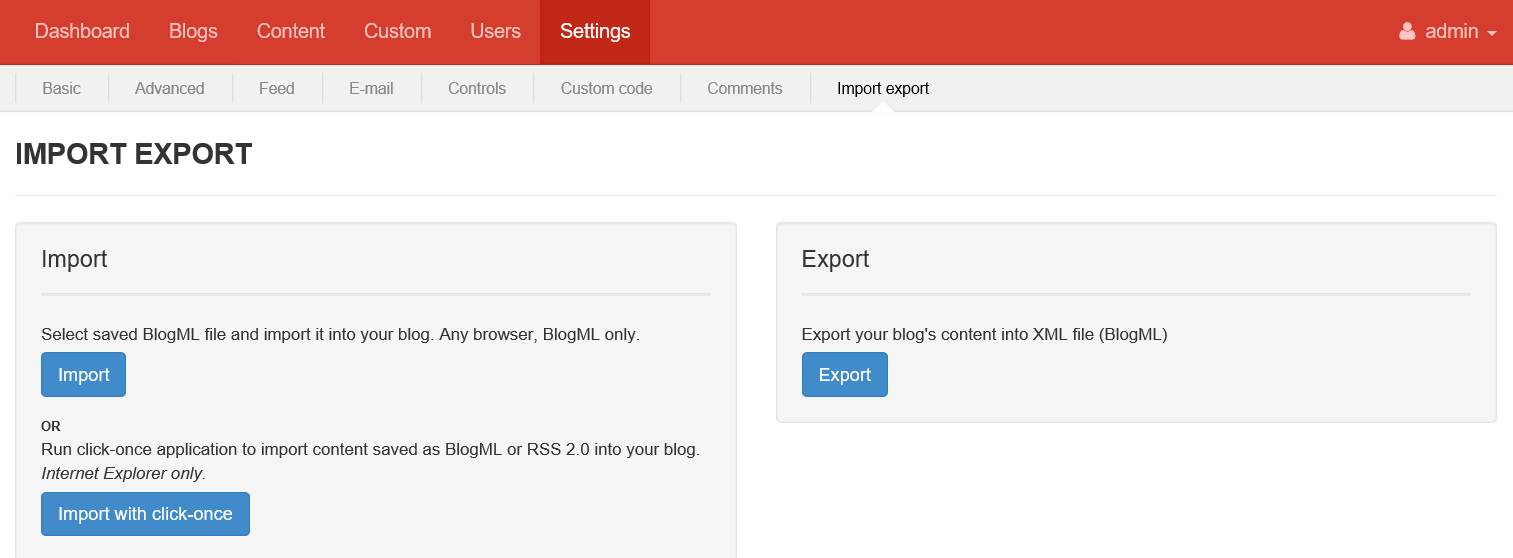
Congratulations! You know how to publish posts to your blog!

## Tutorial #5. How to back up your data

Thanks to Microsoft Azure your blog will be available all the time and in theory you should not lose any data but.. what if you accidentally delete one of your posts, or somebody hacks your password and deletes all the information in your blog. It’s a good idea to have a copy of your data so that if something happens you can restore everything back to the way it was quickly, especially if you have lots of valuable posts and many people who visit your site (or a school project due!)

There are two ways to back up your data: you can use BlogEngine or the Azure Management panel.

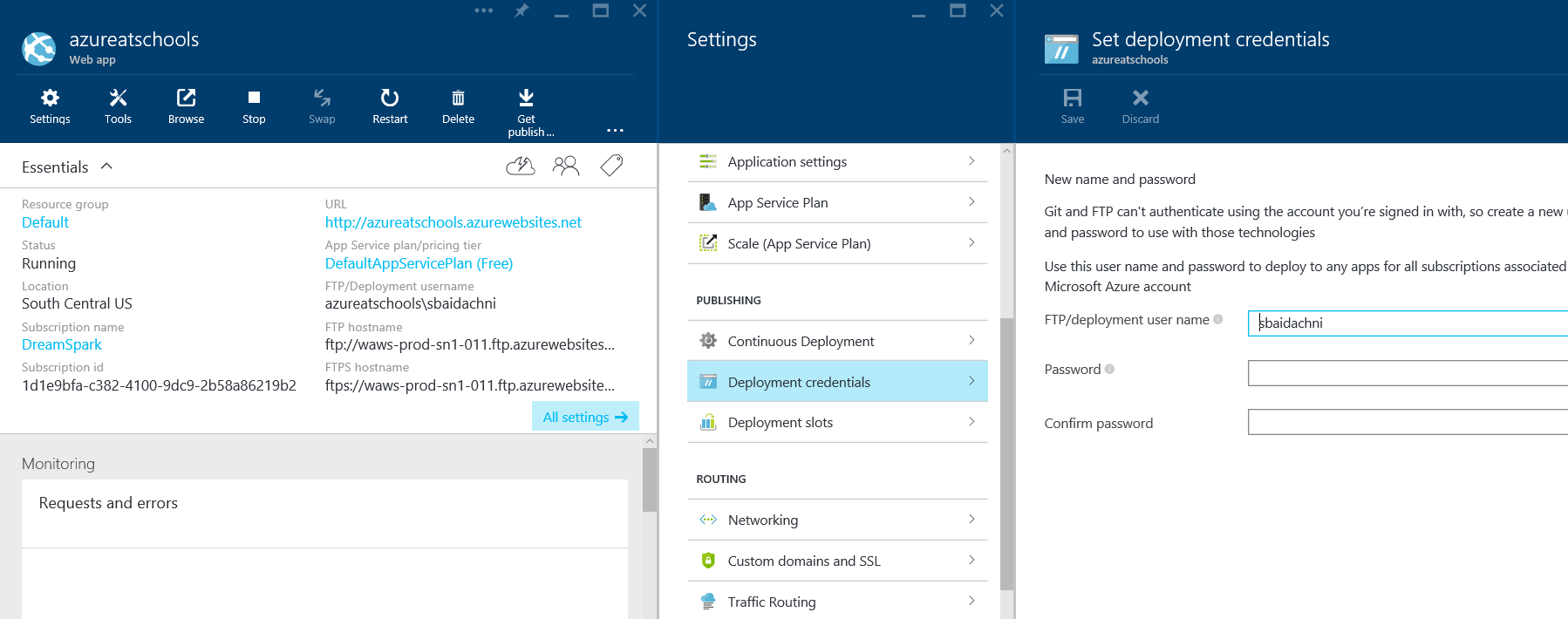
To use BlogEngine, go to the Administrator widget and select **Settings**



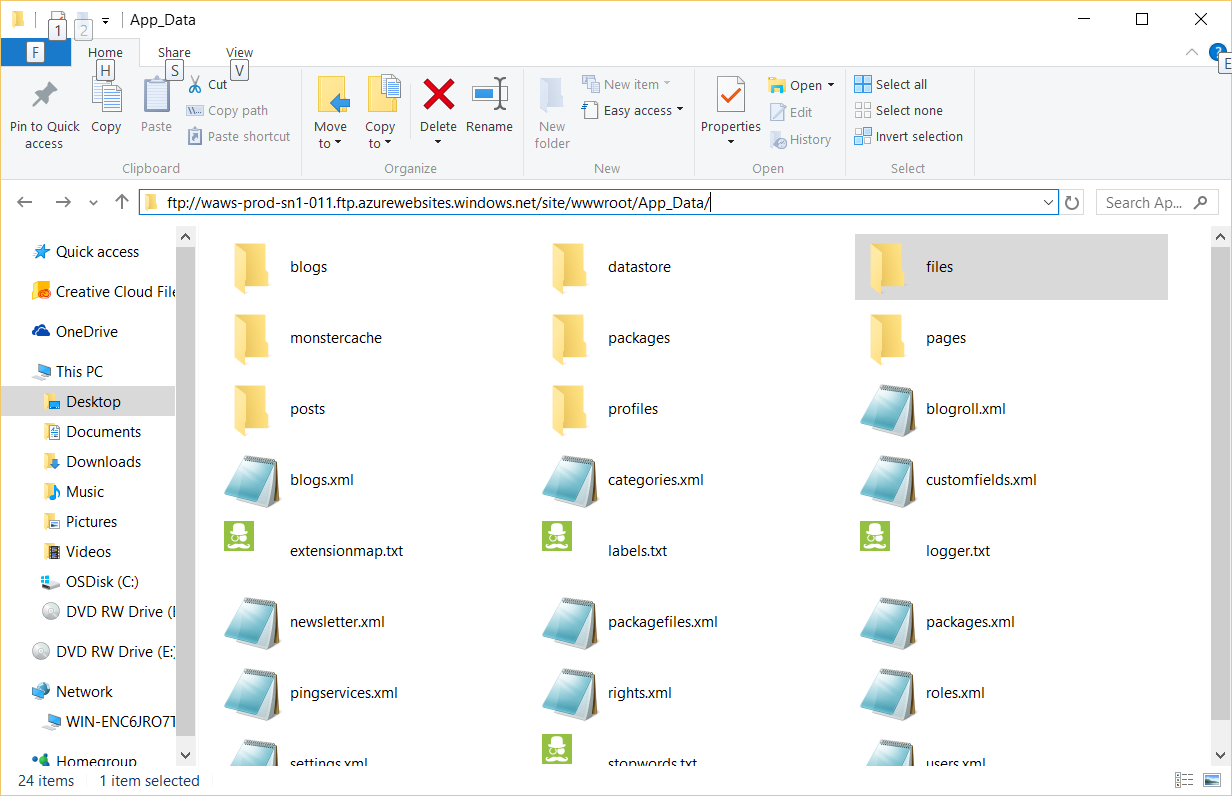
Select the **Import export** tab. If you click the **Export** button, you can export all data from your site in a single text file. If you lose everything and need to get it back, you can redeploy BlogEngine.NET , return to this tab, click the Import button and select the file where you had the backup. This works well, if you want to back up all the text on your site. But this won’t work for images. So, you may want to consider using the Azure Management panel to do your backup

To use the Azure Management panel, Go to <https://portal.azure.com> and go to the dashboard of your web application. In order to login to the portal use the DreamSpark account login that you created in the first two tutorials. On the main page of the dashboard you will find the ftp username and ftp hostname. FTP is a special protocol/access method that allows to work with your site as a list of files and directories. Using FTP, you can open a folder on the server where you site is located and get access to the source code of your site, and since BlogEngine stores all the data in the same folder you can copy data from there and use that as a backup.

On your website, FTP username is not set. So, you need to click the All settings link on the page and open Deployment credentials to provide an ftp username and password:



Once you enter a name and the password you can copy ftp hostname and use it in Explorer to open the folder that contains the files for your website:



When you specify this folder as a location, explorer will ask for the login and password. Make sure you specify the full user name from the dashboard (you may want to copy and paste it from the dashboard)

Once you have access to the folder, navigate to **wwwroot**, you will find some folders there. The BlogEngine.NET stores all it’s data in the **App\_Data** folder. So, just copy the entire **App\_Data** folder to your computer. If something happens with your site you can simply copy back the missing or corrupted files.

Congratulations! You can now backup your blog, so you can don’t lose all your hard work if something goes wrong.

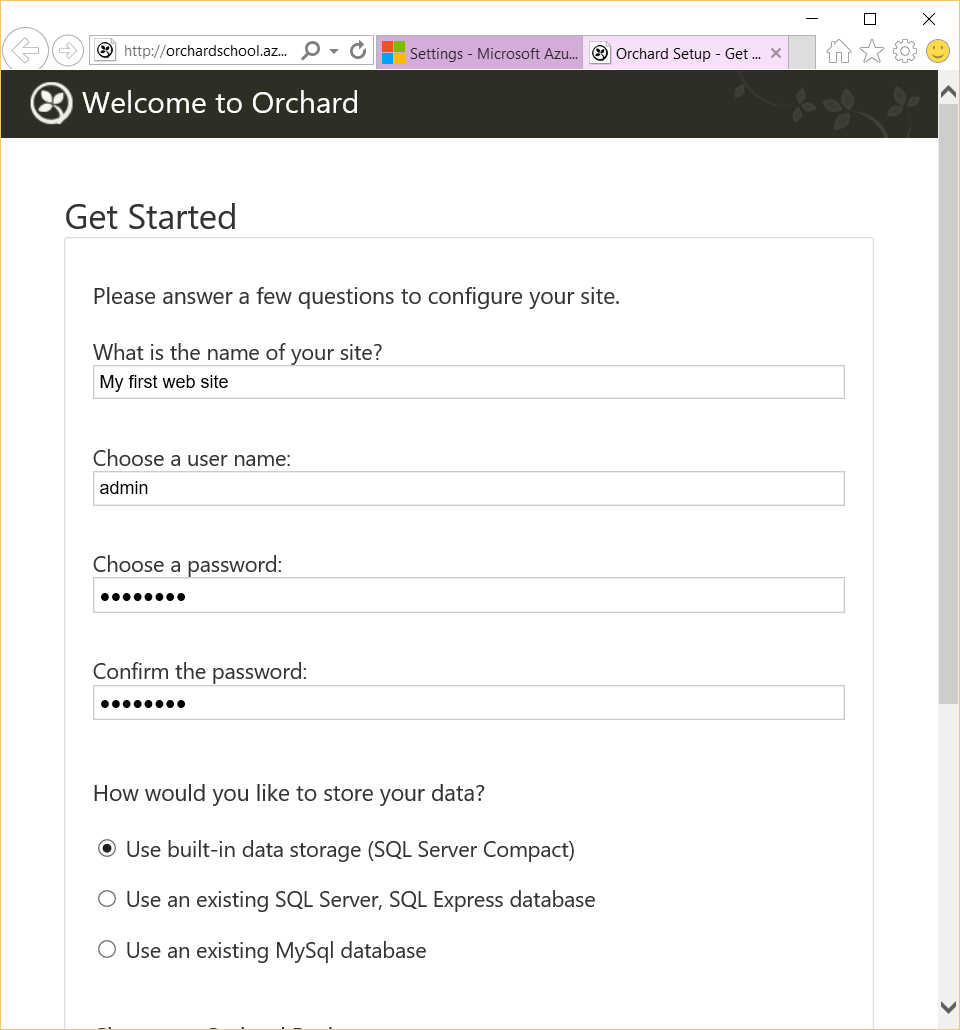
## Tutorial #6. Other templates and next steps

In the previous tutorials we learned how to use Azure to create at web site without any coding. Now, you have a website you can show to your friends. In the next tutorial you will learn how to create a new web site from scratch! But, for now let’s look at a few other tools you can try in Azure for building websites.

**Orchard CMS**

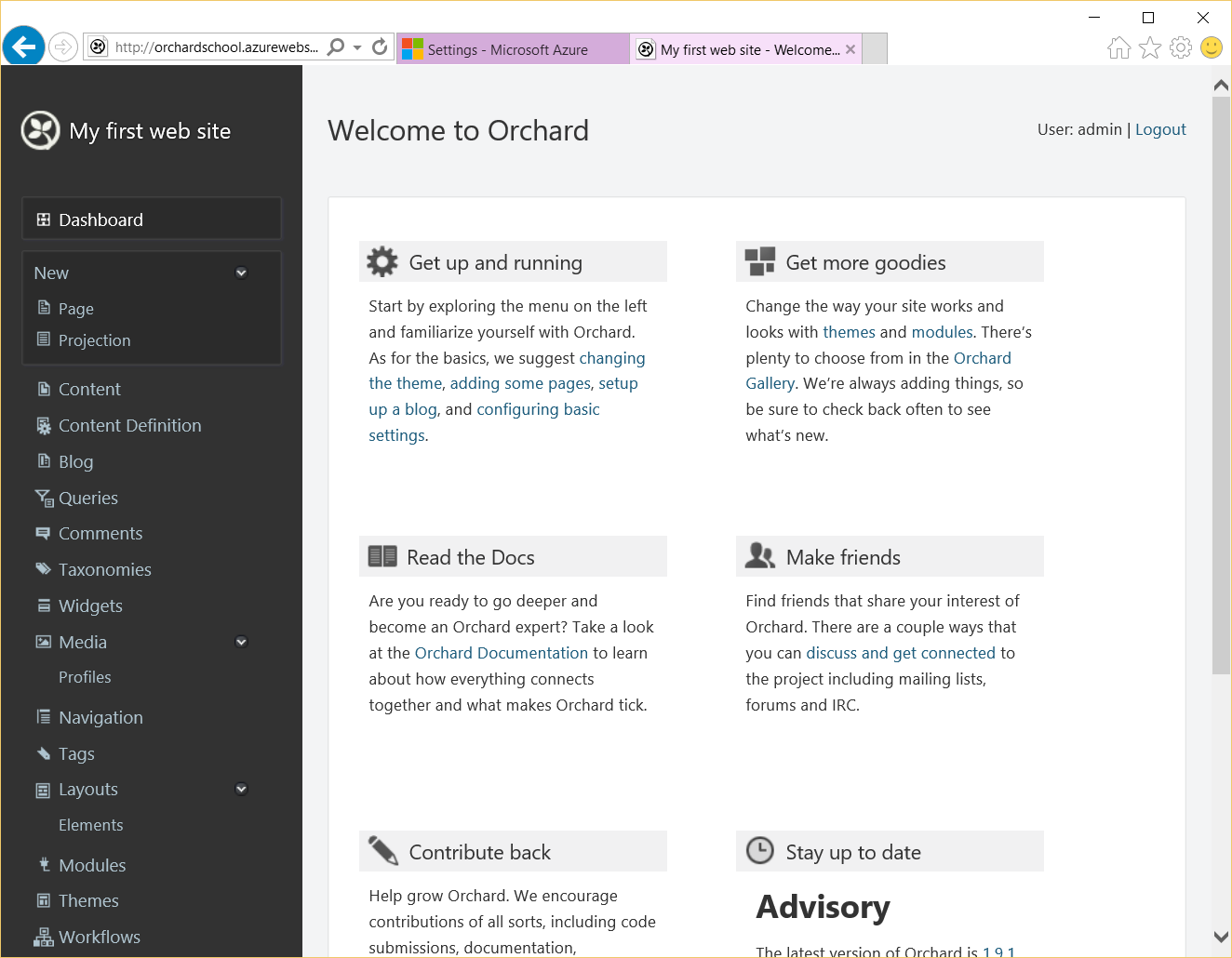
Orchard CMS is a full-featured content management system. That means you can use Orchard CMS not only for blogging, but to create any web site. You have more flexibility in the structure of the website you build. You could create a website that tells everyone about your hobby, or a business. There are stores that use Orchard CMS to build their company web sites.

When you create a new website in Azure, you search the Marketplace for Orchard CMS. When you create the web site, you have to go to the website to set up the login, password and storage configuration:



Because you don’t have access to any external databases, select **built-in data storage** to store all your data on the same disk as your web site.

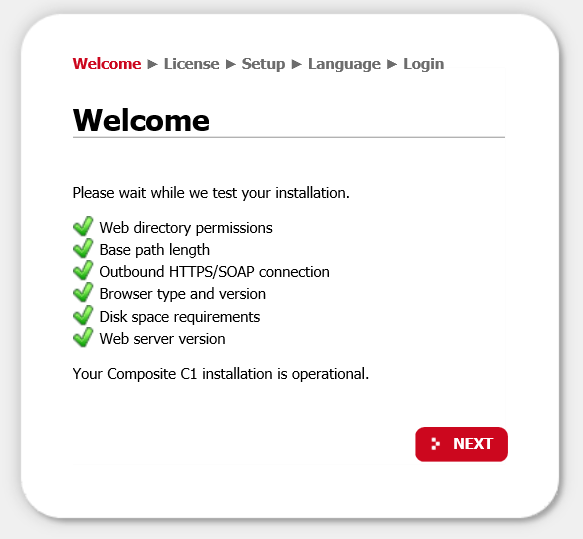
Once you provide all the parameters, to edit the website, you can navigate to your site and add Admin to the site url: http://<site name>/Admin. Adding Admin to the url gives you access to the admin panel where you can create new pages, select site schemas, add widgets to pages and so on.



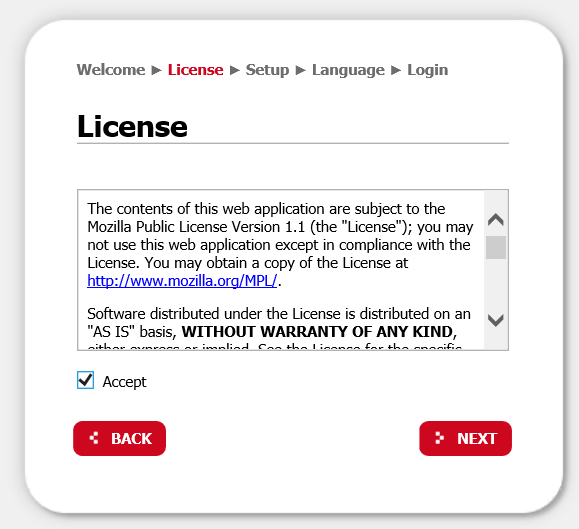
Create a new page and experiment with the editor. You can drag and drop to create your page layout. Just like in BlogEngine you can also add widgets with the Widgets menu item

**Composite C1 .NET CMS**

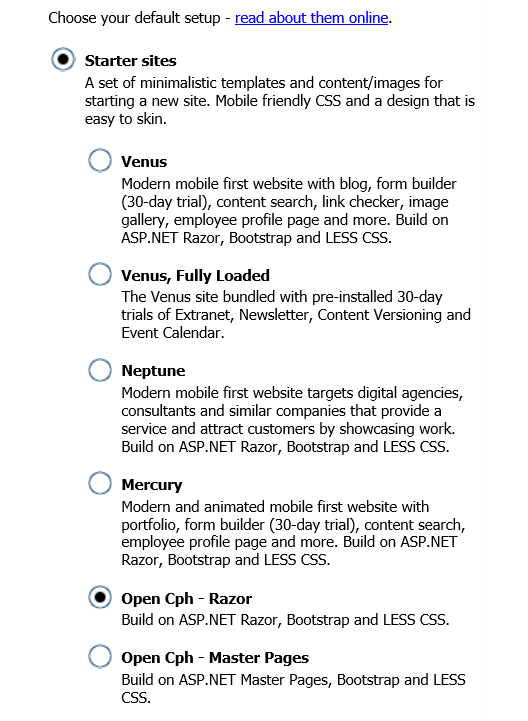
Another content management system in the Marketplace is Composite C1 .NET CMS. Just like the other tools you create a new website on Azure, and select it from the Marketplace. After you create the site, go to the web page to finish setup. When you see this page, everything is set. Click the **Next** button:



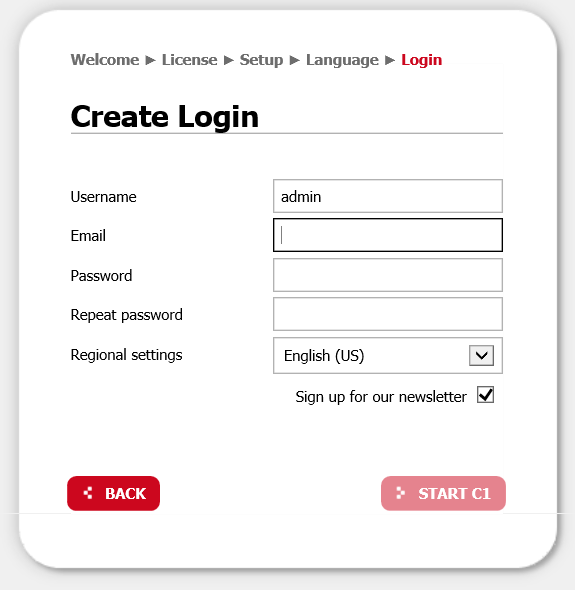
Next you need to accept the licensing agreement, then click **NEXT**



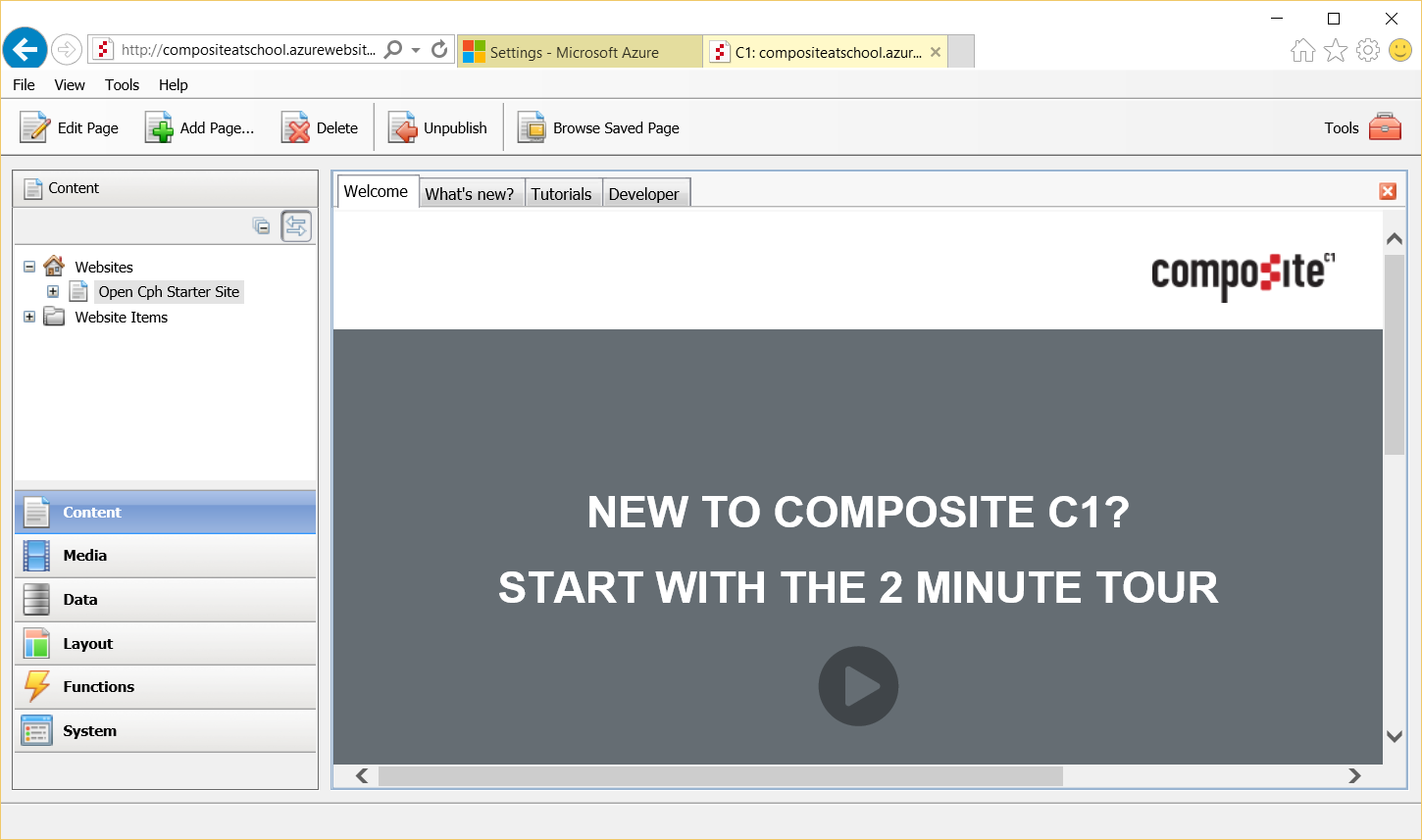
The CMS supports several templates. Some of these templates are free, but others require payment. You can usually get a free trial. In this example I selected the Open Cph template.



You will be asked to provide a login and password



The Composite C1 management system looks very professional



You can easily manage your website content using the separate management portal instead of editing content directly on web pages as we did in the systems we explored earlier.

As you can see there are lots of options for setting up a blog or website. Azure doesn’t limit your choices.

It is important to note that your free DreamSpark/Azure subscription does not give you access to all the features of Azure. For now you can access only the following Azure features:

* **Web Applications** – using this feature we can create hosting space on Microsoft servers. We used this feature to create our first web site
* **Application Insight** – this is a special component that allows you to collect data from your site or application and get information about your site such as the performance of the application, usage, and diagnostic data. We will use this component in our advanced tutorials.
* **MySQL database** – You can create a database based on the popular engine called MySQL. But there are some restrictions: The maximum amount of data you can store is 20 Mb data in total and you cannot have more than 4 connections to the database at the same time.
* **Visual Studio Online** – this is tool you can use when you start writing code. This tool allows you to store your code on Microsoft servers, grant access to your friends so you can work as a team to develop something together

Azure can do a lot more, but DreamSpark/Azure does not give you access to all the features or all the Azure website templates. Generally, you can use any website template that doesn’t require a database or that uses a free instance of the MySQL database.

Before you start our next tutorial, check out the [HTML and CSS for beginners](http://www.microsoftvirtualacademy.com/training-courses/EB415E1A-9D30-498A-9CFE-8E3CE07349A5-5894) course and a tutorial on JavaScript These two technologies are the fundamental technologies used for all web sites and it will make it easier for you to try the next tutorial. We will show you a few HTML elements as we do the tutorial, but you can do much more if you take the time to explore some of these technologies first. Good luck and happy blogging!