

## **FACILITIES AND CHANGES IN THE EDUCATIONAL PROCESS WHEN USING OFFICE365**

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### **ABSTRACT**

*Microsoft Office 365 is the most appropriate set of software tools for the educational and business processes, having multiple facilities in point of email, managing agenda, contact management, videoconferences, editing, storing and sharing documents. With the transition to Office 365, it ocured not only a change in technology but also a change of the pedagogical methods by means of technology. Office 365 for Education provides the necessary support for developing the educational processes, including conducting lessons without paper, using the OneNote facility. In the present, the educational activities on the Office 365 platform contain basic facilities of the educational process, by means of the colaboration and communication between SharePoint and Lync. This Office 365 platform functions in the cloud, with permanent access, from any device, through the Internet, and all the important tools needed for managing an efficient educational process become very easy to manage and exploit.*

**KEYWORDS:** *Educations, Office365, Cloud, Powershell*

### **INTRODUCTION**

Office 365 education platform contains many features that help academic background and the major operations this platform provides are:

- Adds new users at Office 365 domain.
- Assigns licenses and permits from Office 365 domain to users.
- Defining the details to connect to it and reset possibilities of passwords
- Configures SharePoint sites for administrative activities, for collaborative work in teams to achieve various projects, for learning, for different subjects and for creating personal websites.
- Possibility of editing and improvement of various elements of the sites
- Setting up a simple website and the possibility to be made visible to the public.
- Possibility to track groups, individuals and documents.
- Configuration of applications for SharePoint sites.

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- Configuration of team sites and allocate tasks to the team members using SharePoint applications.

As main benefits of Office 365 we have identified: access authenticated based on user and password information from anywhere and at anytime to the information assigned by the IT administrator [1-3]; Office use in any browser from your smart-phone or tablet; no matter what device the user is working on as the content, information and settings are the same; Working simultaneously on a document with multiple users without occurrence of content conflicts; users can work without Internet connection, with the Office package installed locally and then modified documents will automatically synchronize at return of Internet connection; immediate blocking of mobile devices or tablets in case of theft, damage or loss. In Table 1 we introduced the main facilities for applications in Office 365 package and their role in education [4-5].

Table 1. The main elements included in Office 365 Suite of Applications

 <span>Mail</span>	<p>Provides a superior e-mail also containing calendar and contacts with a 50 GB in-box.</p>
 <span>OneNote</span>	<p>Allows you organize and share work by collecting of course materials in one digital notebook. You can also perform interactive content to easily collaborate with students.</p>
 <span>Sway</span>	<p>Allows you to create professional-looking models/projects using text, images, videos which can be shared then.</p>
	<p>Teachers and students get online versions of Word, PowerPoint, Excel and OneNote. Also there is the possibility to provide them full Office applications that can be installed on up to 5 PC or Mac for free.</p>
	<p>It provides OneDrive storage space of 1TB to share homework, provide feedback and work together students/teachers in real time using also mobile devices.</p>
	<p>Making online courses and other events with audio and video content, on any device, enabling screen sharing.</p>
	<p>PowerPoint presentations, Word documents and Excel, PDFs and Sway courts can be grouped into a unique profile and then shared with colleagues and students</p>
	<p>Delve allows to obtain customized content from Office 365 and shows you how teachers interact with documents and with each other.</p>

 <span>Planner</span>	Planner facilitates creation and sharing lesson plans, organizing and assigning themes in class and talks about things you work on.
 <span>SharePoint</span>	Work with teachers and support staff in projects using team sites that help you keep related documents, notes, tasks, and conversations organized together.
 <span>Yammer</span>	Tools like Yammer help classmates and instructors to remain connected at all times, encouraging open communication and deepening notions.
 <span>Video</span>	Office 365 Video is a company-wide destination for uploading, sharing and discovering video files and smooth playback on all devices.

**In practice, for managing an Office 365 solution** should be accomplished the following tasks: adding and managing users; Outlook and Exchange Online management; SharePoint Online administration; public site management company; Lync Online administration; Polycom's Lync-integration; Office 365 subscription management [6].

### PRACTICAL STUDY FOR USE OF GROUPS IN OFFICE 365

Office 365 platform users can be managed by using security groups, groups at share-point level and distribution groups. Administration of these groups can be made both at the interface Office 365 (Figure 1) using ADManager Plus, which helps to define new accounts for users of Office 365 (based on Azure Active Directory) through a single web-based console or through PowerShell scripts [4-8].

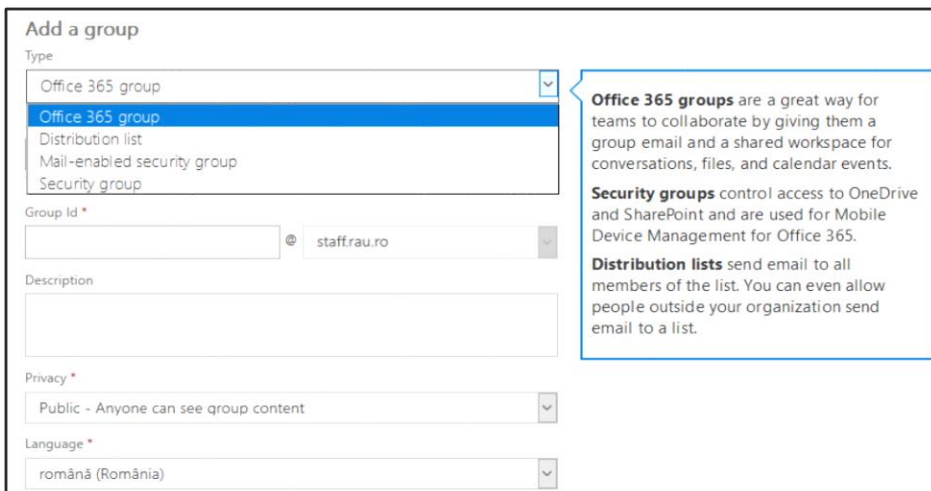


Figure 1. Creating groups by using Office365 interface

The main PowerShell commands for using groups are displayed in Table 2.

Table 2. PowerShell commands for groups [8]

PowerShell commands	Role of these commands
<b>Get-DistributionGroup</b>	Display the members of a distribution group.
<b>New-DistributionGroup</b>	Create a distribution group.
<b>Remove-DistributionGroup</b>	Delete a distribution group.
<b>Set-DistributionGroup</b>	Change the properties of an existing distribution group.
<b>Add-DistributionGroupMember</b>	Add a recipient to an existing distribution group.
<b>Get-DistributionGroupMember</b>	View the members of an existing distribution group.
<b>Remove-DistributionGroupMember</b>	Delete a recipient from the membership of a distribution group.
<b>Get-Group</b>	View all distribution groups, security groups, and role groups in your organization.
<b>Add-MsolGroupMember</b>	<b>Add-MsolGroupMember</b> cmdlet is used to add members to a security group. New members can be either users or other security groups.
<b>Get-MsolGroup</b>	Cmdlet Get-MsolGroup is used to retrieve Azure AD groups. This cmdlet can be used to return to a single group (if passed ObjectId), or to search in all groups.
<b>Get-MsolGroupMember</b>	Cmdlet Get-MsolGroupMember is used to extract the specified group members. Members can be either users or groups.
<b>New-MsolGroup</b>	<b>Cmdlet New-MsolGroup</b> is used to add a new security group
<b>Remove-MsolGroup</b>	<b>Allows to delate a group</b>
<b>Remove-MsolGroupMember</b>	<b>For eliminating a member from a security group</b>
<b>Set-MsolGroup</b>	<b>Cmdlet-ul Set-MsolGroup</b> is used to update the properties of a security group.

As a case study for work with PowerShell commands on accounts of Office 365 you we will pass through the commands below in the following order:

- Will launch the Windows PowerShell application;
- Will run the `$LiveCred = Get-Credential` to connect to a management account of the users in an organization. Following this command in the window in Figure 2 are defined the elements of authentication.

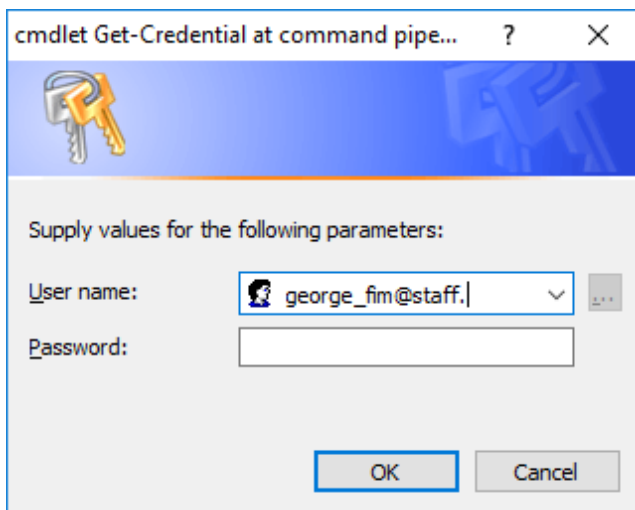


Figure 2. Credentials for authentication

- ➔ `$Session = New-PSSession -ConfigurationName Microsoft.Exchange - ConnectionUri https://ps.outlook.com/powershell/ -Credential $LiveCred - Authentication Basic -AllowRedirection`
- ➔ `Import-PSSession $Session`
- ➔ `Get-ExecutionPolicy`
- ➔ `Set-ExecutionPolicy Unrestricted`
- ➔ We will create a distribution group with `New-DistributionGroup -Name "Grupa601INFO"` command
- ➔ If the users that will added in an external file with CSV extension of the form Display name, Alias, E-mail address then the command that adds users to the previous created group is:

```
Import-Csv "c:\csv\csv.txt" | foreach{Add-DistributionGroupMember -Identity "Grupa601INFO" -Member $_.alias}
```

- ➔ Example to display the members of a distribution group: `Get-DistributionGroupMember -Identity "GrupaD103INFO"`
- ➔ Display of distribution groups: `Get-DistributionGroup`
- ➔ Creation of a Distribution Group is achieved:

```
1) New-DistributionGroup -Name "Grupa602INFO"-Type Security
```

- ➔ Remove a Distribution Group:

```
Remove-DistributionGroup "Grupa601INFO"
```

## **ONENOTE, CLASS NOTEBOOK AND SHAREPOINT FACILITIES FOR EDUCATION**

For communication and easy sharing of data and information it is recommended that users be grouped. OneNote is a good application with a role in organizing resources in notebooks, sections and pages and also for teacher-student collaborative work. In this regard, according to Figure 3 OneNote online has two sections: Teacher and Student [9-10].

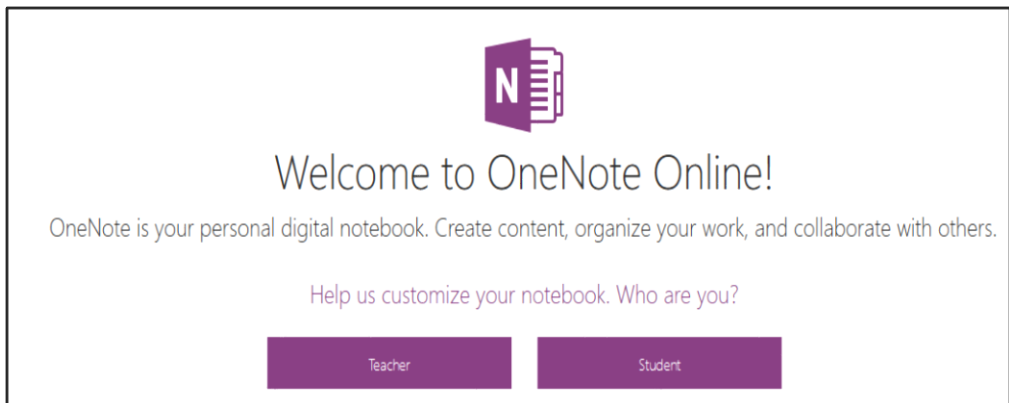


Figure 3. OneNote Online

To highlight this feature, we created sections for which we defined templates in order to assist students in preparing the practical applications of theoretical notions and fast learning. Once templates have been created students can study them in order to realize their own projects/portfolios, which can then be shared both with teachers and with other colleagues.

Moreover, if we use a locally installed version of OneNote, you can add multimedia elements, audio and video recordings for completed projects. This is achieved since OneNote synchronize between the installed version of OneNote and OneNote Online, so all changes/additions are updated in real time, provided that there may be multimedia elements that cannot be used with OneNote Online. To highlight the OneNote facilities, we created examples of Sections and Templates, as shown in Figure 4.

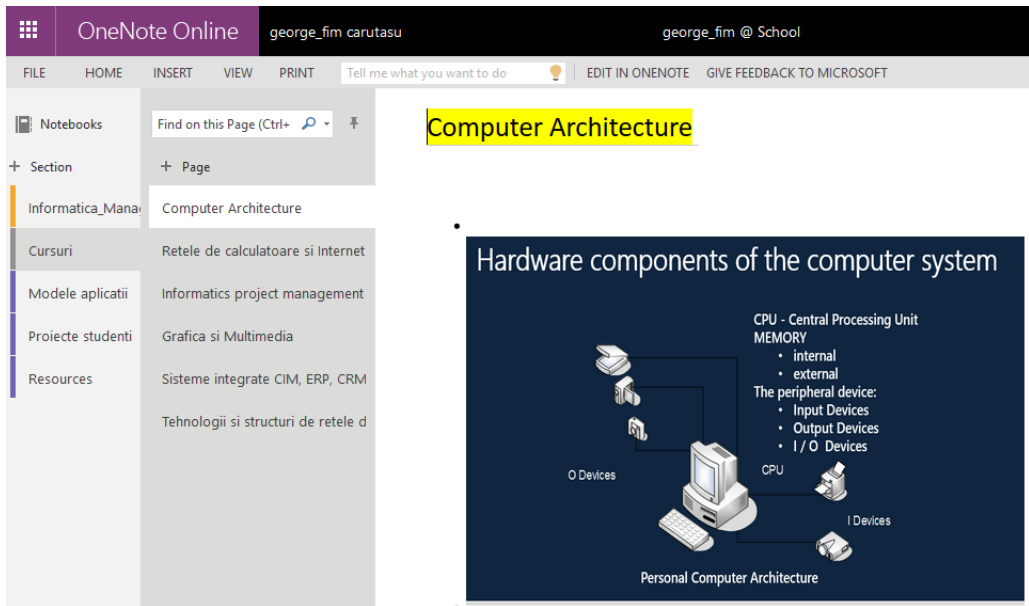


Figure 4. Case-study- OneNote Sections

Sharing these resources is achieved by assigning rights to edit or change of the shared resources, as shown in Figure 5.

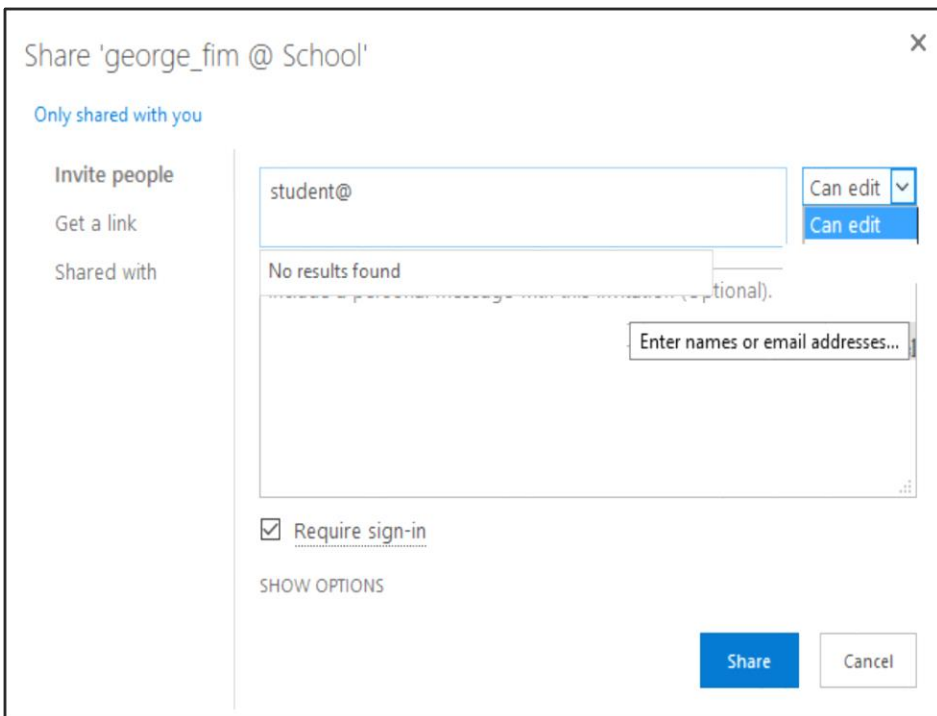


Figure 5. Window for sharing groups and users

Class **NoteBook** application allows a teacher to set up a workspace for each student, a library of content and a collaborative space for classes and activities, all in one notebook.

With the help of this tool, teachers can easily add students in a shared notepad, to enable differentiated teaching, content delivery and digital collaboration space where students can work together. Also, teachers provide them feedback in real time. To understand how to use these facilities is created a site that can be found at <http://onenoteineducation.com/ro-RO>. The application is easy to use and allows the following steps: choosing the name of notebook; display of shared sections in notepad, to distribute materials and put students to work collaboratively; adding associate professors; adding students; setting sections for students; according to the above discussion on created workspaces (Figure 6) can be added students or teachers.

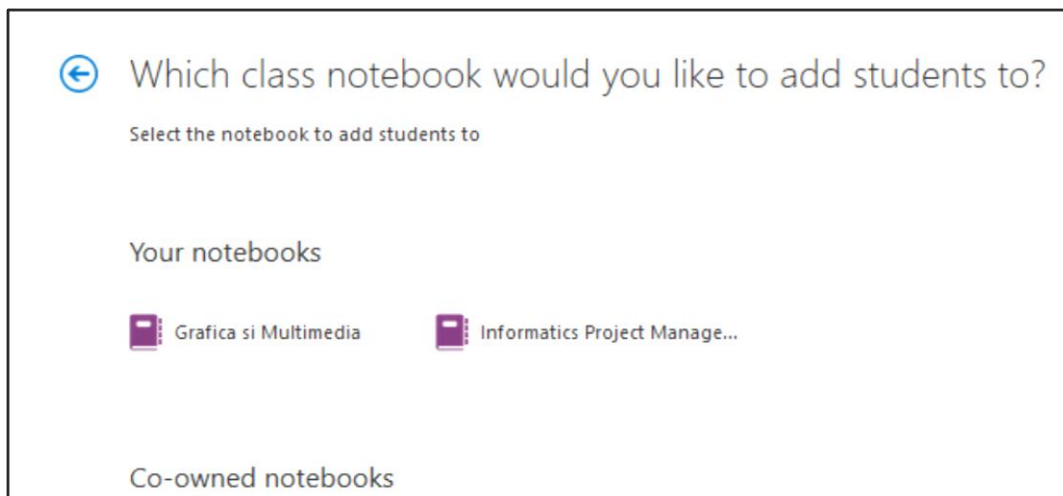


Figure 6. Add students at class notebook

**SharePoint** is the system behind the web Microsoft sites and offers students multiple opportunities to create online and offline web content for information and individual work, organizing working groups and management of related documents, following version of documents, blogs and other elements necessary for learning activities. SharePoint provides perfect integration with other Microsoft technologies available in Office 365.

As a key part of Office 365, SharePoint offers facilities for information management and collaboration that are integrated in Office applications, which teachers and students use every day to create and develop documents, coordinate teamwork, and make decisions.

The new unified access system and intelligent search for all Office 365 documents make easier creation, sharing and collaboration from anywhere, and on any device. Either by one of the Office 365 mobile applications or directly from the browser, now important files will always be at your fingertips with the new search technology and selective synchronization between PC, cloud and mobile devices.



SharePoint mobile application developed for Windows, iOS and Android, brings intranet functionality on mobile devices for use regardless of location and type of implementation. Home SharePoint (Figure 7) facilitates visualization and unified access to all sites and activities of a user, creating an Internet experience and efficient use of all resources, both internal and in cloud [12].



Figure 7. SharePoint home page (<https://staffrau.sharepoint.com/SitePages/Home.aspx>)

SharePoint brings conditional smart access policies that automatically adapts to working context - based on identity, location or device used. Algorithms for protection against data loss (DLP - Data Loss Protection), integrated into SharePoint and Office 365 fallow defining important data and automated access or transfer policies of them. At any time resources and applications used in Office 365 platform for each user/student/teacher can be monitored, as shown in Figure 8. Moreover, all these reports, web pages are synchronized on your PC, tablet or smart-phone regardless of operating system of the equipment used [11].

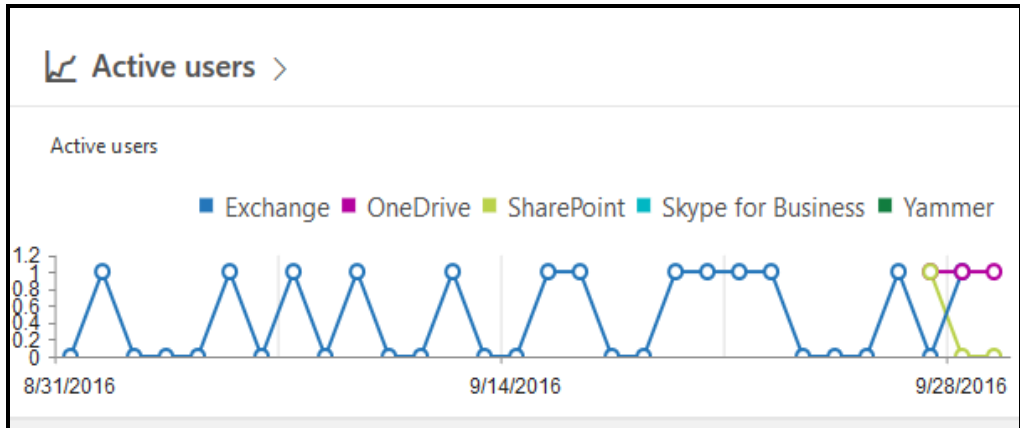


Figure 8. Active users

In practice, a SharePoint Online administrator can perform the following activities:

- creating, deleting and managing websites collections;
- allotting and monitoring the storage space of the websites collection;
- granting access for the website collection administrators;
- configuring the implicit SharePoint site;
- planning multi-languages sites;
- managing user profiles;
- planning and managing characteristics such as managed metadata;
- activating or deactivating external sharing.

At the same time, users can be added in the team website and permissions for users can be adjusted, in this way levels of permission and the membership to a SharePoint being established. A group is a set of users defined by the level of website collection for an easy management of permissions.

Each group is given an implicit level of permission. A site owner has the total control level of permission (Figure 9) and his/her main responsibilities are:

- creating and managing websites;
- managing the websites characteristics and setting, such as style and appearance;
- saving a website as a template;
- managing the website columns and the content site types;
- deleting a site;
- adjusting the regional and linguistic settings;
- adding applications in websites;




 Add a Permission Level |  Delete Selected Permission Levels

Permission Level	Description
<input type="checkbox"/> Full Control	Has full control.
<input type="checkbox"/> Design	Can view, add, update, delete, approve, and customize.
<input type="checkbox"/> Edit	Can add, edit and delete lists; can view, add, update and delete list items and documents.
<input type="checkbox"/> Contribute	Can view, add, update, and delete list items and documents.
<input type="checkbox"/> Read	Can view pages and list items and download documents.
<input type="checkbox"/> View Only	Can view pages, list items, and documents. Document types with server-side file handlers can be viewed in the browser but not downloaded.

Figure 9. Permission levels

Also, Team Site can communicate effectively with the student groups, organized by study levels (Figure 10).

Shared Documents

 New     Upload     Share








<input checked="" type="checkbox"/>		Name	Modified	Modified By
		Anul I	... 4 hours ago	<input type="checkbox"/> george_fim carutasu
		Anul II	... 4 hours ago	<input type="checkbox"/> george_fim carutasu
		Anul III	... 4 hours ago	<input type="checkbox"/> george_fim carutasu
		Master I	... 4 hours ago	<input type="checkbox"/> george_fim carutasu
		Master II	... 4 hours ago	<input type="checkbox"/> george_fim carutasu
		im-ghid	... July 24, 2016	<input type="checkbox"/> george_fim carutasu

Figure 10. The Folder Structure on the Team Site level.

Users who access Team Site are managed in the SharePoint Group, for which permissions are defined in the Figure 11.

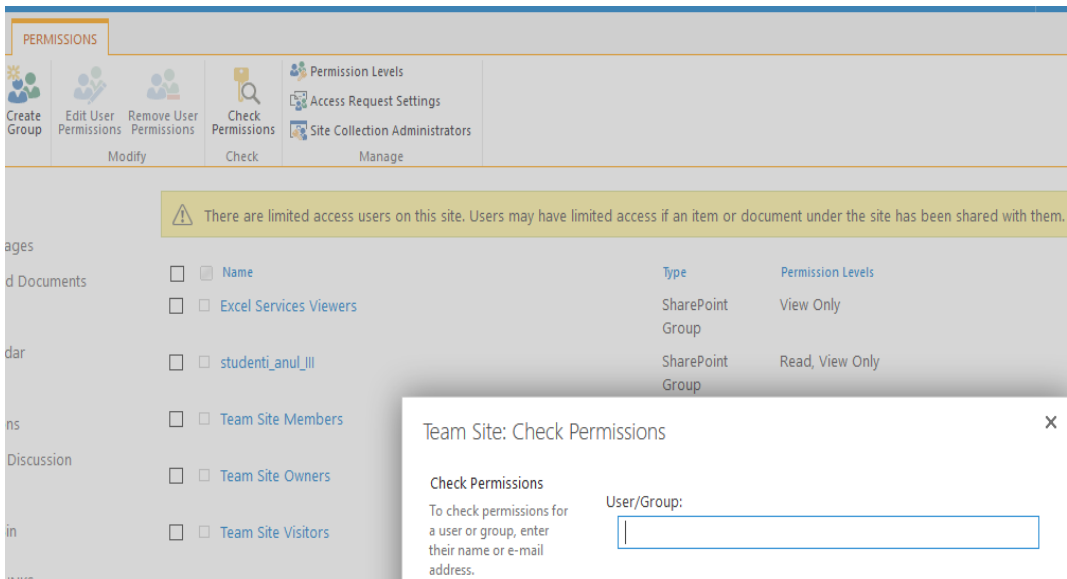


Figure 11. SharePoint Group Permissions

## CONCLUSIONS

Office 365 is a cloud type service offered by Microsoft, hosted on Microsoft's servers and academic institutions can benefit from Office 365 Education for free or can upgrade to complex features with a significant price reduction. Office 365 plans for education include many features such as agreements of guaranteed service level of 99.9%; IT and web support and non-stop phone support for critical issues; active Directory integration to easily manage user credentials and permissions; global data security and access from anywhere and from any device (PC, tablet, smart-phone) to Office 365 applications and tools for students and teachers.

Simultaneous access for students and teachers to the same documents, reports, projects, presentations. The possibility to connect teachers and students through Lync Online and SharePoint Online and HD audio-video conferencing on PC, tablet or smart-phone lead to an education system that meets the highest educational standards [12].

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