



University of Maribor

Faculty of Organizational Sciences

IT Tools for Education Overview of Technologies

MS-Teams – Classroom, Zoom - Conferences

Prof. Dr. Andrej Škraba

University of Maribor, Faculty of Organizational Sciences, Cybernetics & DSS Laboratory | Kidričeva cesta 55a, 4000 Kranj, Slovenia | +386 4 23 74 200 | fov.um.si | andrej.skraba@um.si | www.facebook.com/fovkranj

Overview of Content

- MS Teams will be presented for the application in the Classroom
 - How to create a Class
 - Integration aspects
 - Linking to moodle
 - Sharing the content
 - Using tablet
 - Hybrid Approach
- Organizing scientific conference with Zoom 200+ participants
 - Technical, organizational and ecology aspects

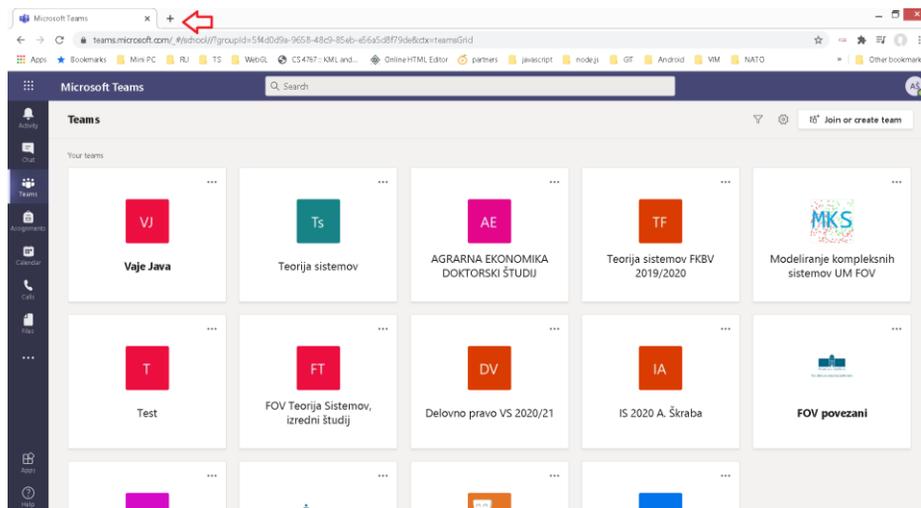
Microsoft MS Teams

- Microsoft Teams is a collaboration app
- Organizing teams, allowing conversations
- All in one place
- App or in browser
 - App variant works better
 - Windows native app
 - Browser everywhere available – no install
 - Important functionality
- Download at:

<https://www.microsoft.com/en-us/microsoft-365/microsoft-teams/download-app>

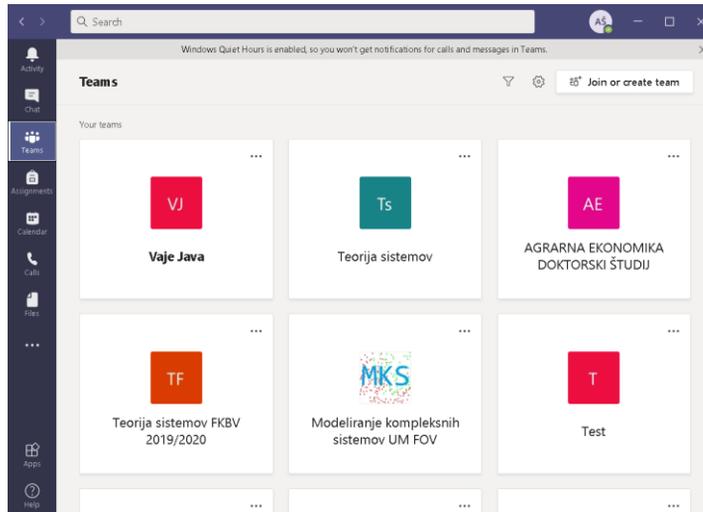
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Browser Variant



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App Variant Installed Locally



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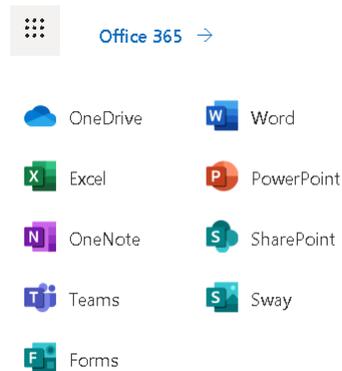
MS Teams Functionality

- Create Teams or Channels
- On-the-spot meetings, conversations, file sharing
- Meetings Scheduling - calendar syncs with the Outlook calendar
- Call anyone from Teams, even if they're not using Teams
- Activity – Overview of unread messages, @mentions, replies etc.

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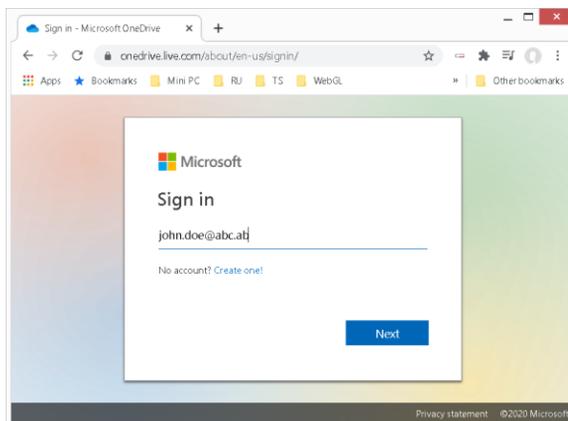
MS Teams Prerequisites for Efficiency

- License from your institution
- Integration with MS ecosystem
- Important benefits
- Streamlines the work



One Login For All Applications

- Similar to Google environment

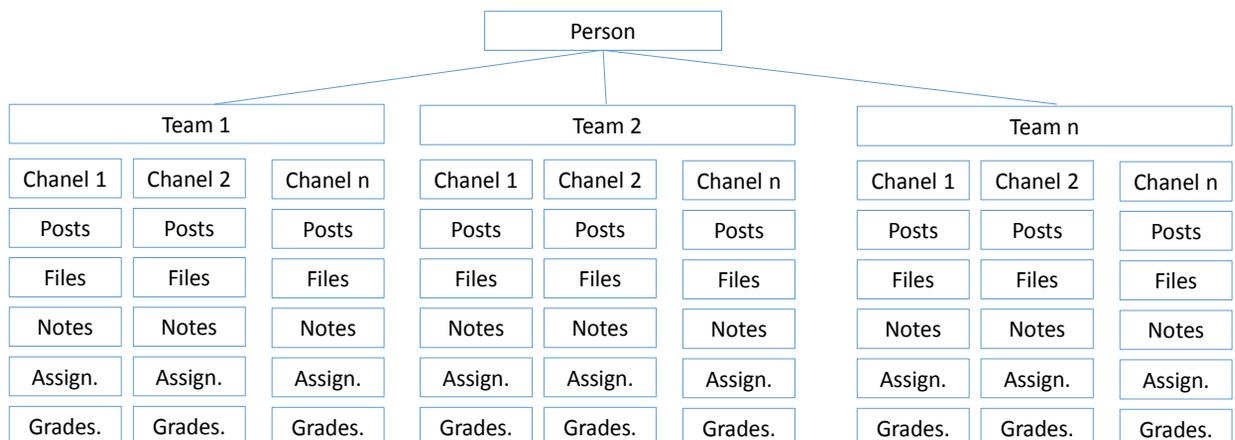


Basic Menu

| | |
|-------------|---|
| Activity | Activity tag provides overview of recent activities in the tool. The activities can be filtered by keyword and grouped by type. Mail notifications can be setup |
| Chat | Chat with the contacts that are within your organization. Video conversation and desktop sharing are also enabled. |
| Teams | Show the teams of which the user is a member. Within the teams the information are structured within the channels for better overview |
| Assignments | Collection of all Assignments and quizzes – supported by MS Forms. The grading is also supported |
| Calendar | Overview of all events. Creation of the events, according to the class schedule. The calendar is synchronized with the Outlook |
| Calls | Calls enable the communication with contacts. The functionality is similar to Skype enabling text and video chat |
| Files | Overview of all our files in Teams and entire MS ecosystem of the user. The files are synchronized with OneDrive |
| ... | The link to other tools, that can be included into MS Teams, like Kahoot, Forms, YouTube, Wikipedia, TeamViewer |

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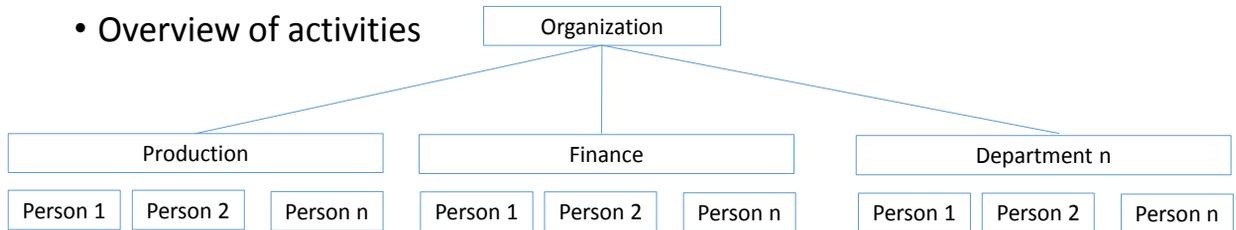
Person view on Teams



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Organizational view on Teams

- Include departments
- Logically connected
- Overview of activities



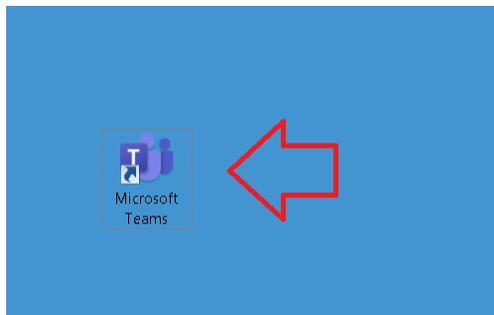
MS Teams limits

- Number of teams a user can create: Subject to a 250 object limit
- Number of teams a user can be a member of: 1,000
- Number of members in a team: 10,000
- Number of owners per team: 100
- Number of org-wide teams allowed in a tenant: 5
- Number of members in an org-wide team: 5,000
- Number of teams a global admin can create: 500,000
- Number of teams a Microsoft 365 or Office 365 organization can have: 500,000
- Number of channels per team: 200 (includes deleted channels)
- Number of Private channels per team: 30 (includes deleted channels)
- Number of members in a Private channel: 250
- Maximum number of members in an Office 365 group that can be converted to a team: 10,000
- Channel conversation post size: Approximately 28 KB per post

Source: <https://docs.microsoft.com/en-us/microsoftteams/limits-specifications-teams>

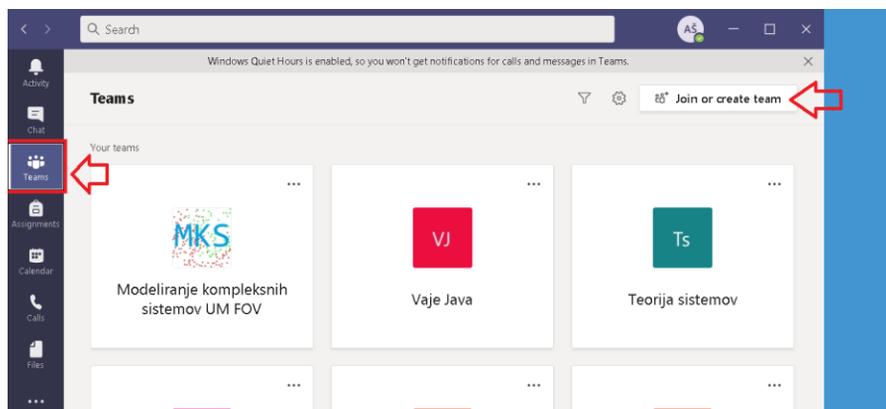
How to Create a Class

- Start the MS Teams – desktop app



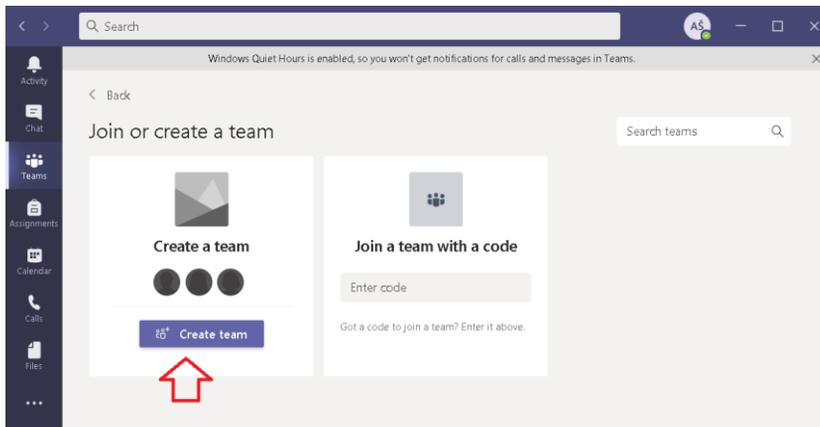
How to Create a Class

- Under the Teams select Join or create team



Create a team

- Click on the „Create team“ button under Teams / Join or create team



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Team type

- One can choose between different Team types
- Class enables discussions, group projects and assignments



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Name and description

- Enter name of the class and description
- In larger setups it is good to add your department/faculty i.e. UM FOV

Create your team

Teachers are owners of class teams and students participate as members. Each class team allows you to create assignments and quizzes, record student feedback, and give your students a private space for notes in Class Notebook.

Name

Optimiranje in simulacija sistemov UM FOV

Description (optional)

Online class support for the subject "Optimiranje in simulacija sistemov"

Create a team using an existing team as a template

Cancel

Next

Add students

- You can add students to the particular Class by entering their mail address
- In combination with moodle, you can Skip this step and inform the students about the Class setup by publishing a link to the Class

Add people to "Optimiranje in simulacija sistemov UM FOV"

Students Teachers

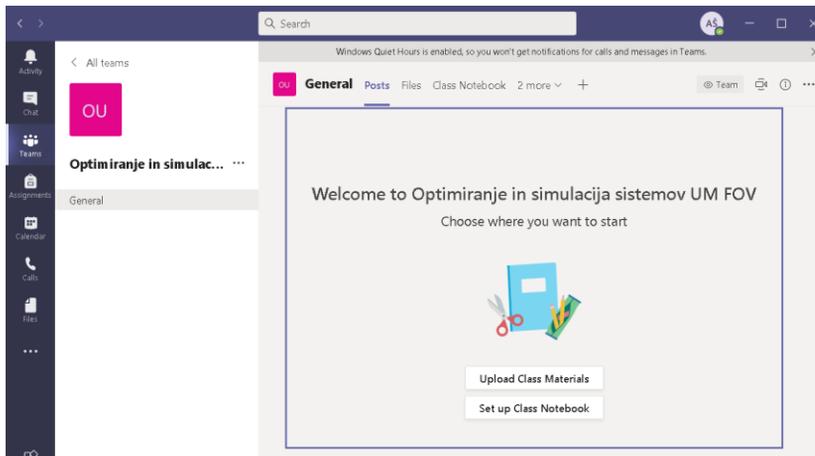
andrej.skraba@ | Add

AŠ Andrej Škraba (Guest) andrejskraba@fov.uni-mb.si

Skip

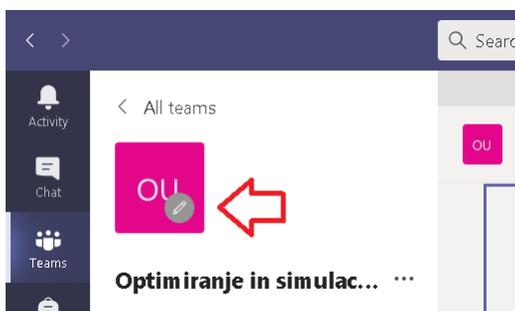
Class Created

- After creation, the Class should be set up



Class Icon

- First, the icon should be changed



Upload the icon

- Select the Upload Icon

Update Optimiranje in simulacija sistemov UM FOV class details

Class name

Optimiranje in simulacija sistemov UM FOV

Choose a class avatar

Grade level

Primary

Subject

Other



Add the new icon

- Update the Icon

Choose a class avatar

Grade level

Primary

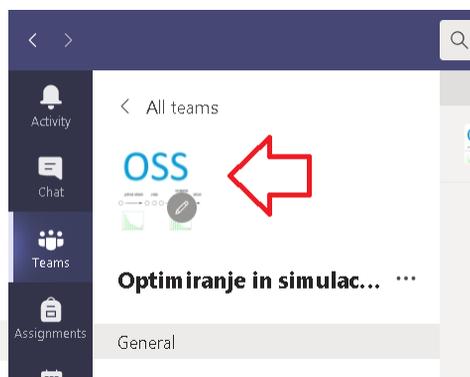
Subject

Other



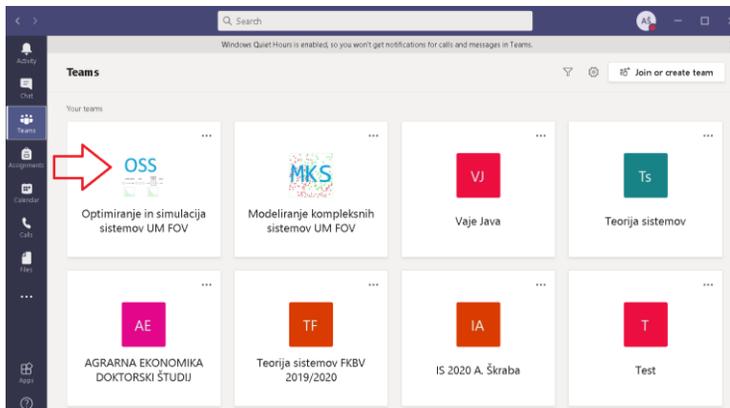
Cancel

Update



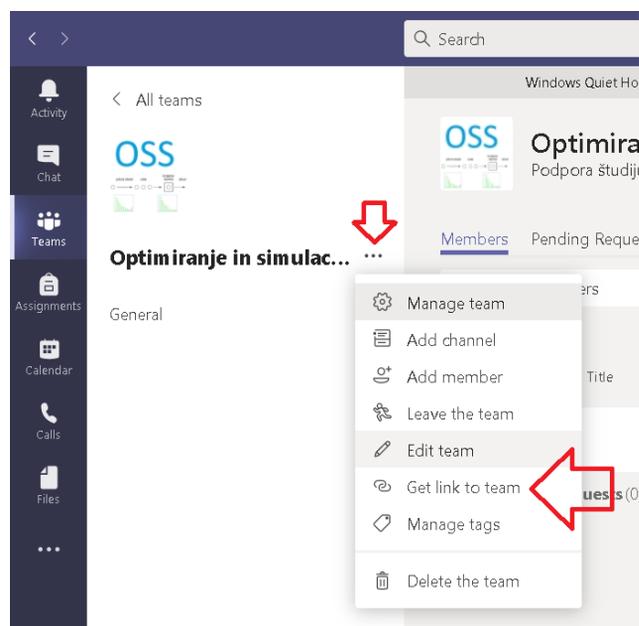
Class Added

- The class is among Classes tiles, the tiles can be moved around by mouse



Link

- How to link the students to the Class?
- Elypsis/Get link to team



Copy the link to clipboard

- The link to the team is displayed and selected
- Press the Copy button

Get a link to the team

46f7-8172-7b8a9c0036098&tenantId=8ef1464e-28b6-449d-95be-e669ee3d08ac

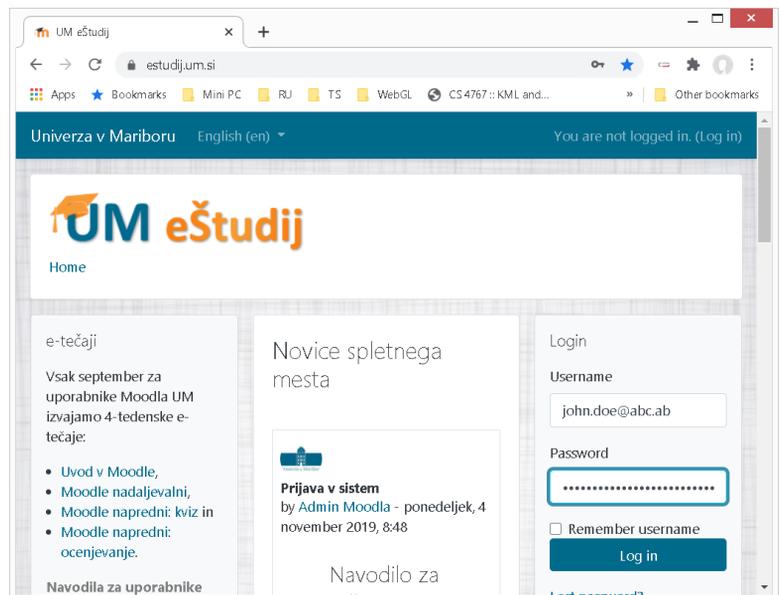
Cancel

Copy



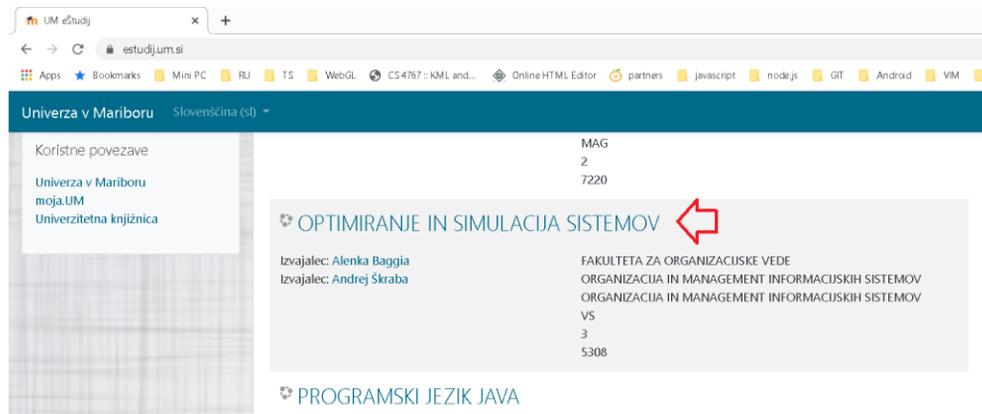
Link to Moodle

- Go to your moodle or yours' preferred distance learning platform
- Moodle is usually already used to provide students with material



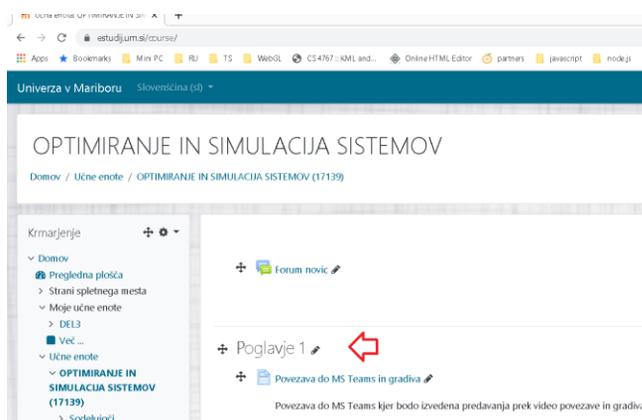
Select your Class

- Select your class to provide the link to the MS Teams



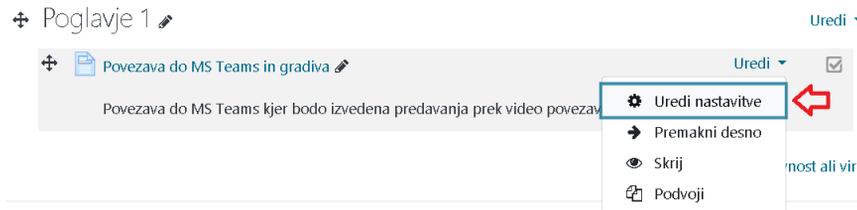
Enter Chapter #1

- Enter Chapter #1 in moodle under your class



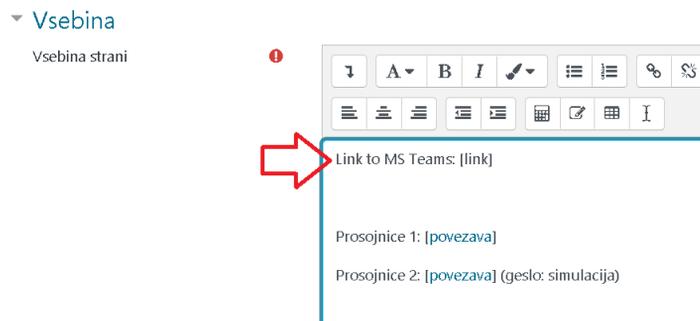
Edit Preferences

- In moodle Edit Preferences, to add the link



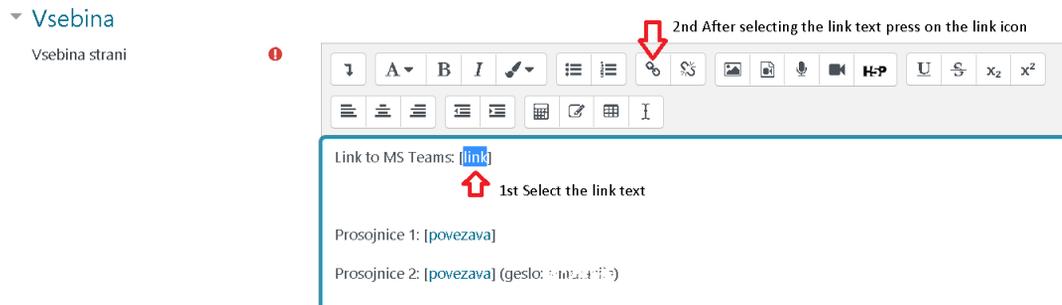
Add Text

- In moodle Add Text „Link to MS Teams“: [link]



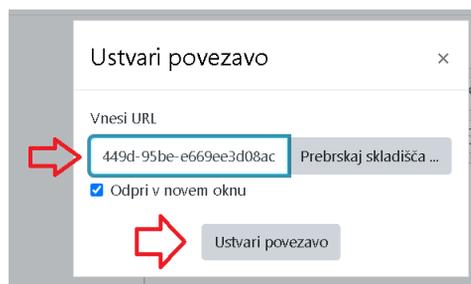
Select the Text

- In moodle select the text and then press the link icon to insert the link



Paste the link

- In moodle, we paste the link to the MS Teams Class
- x select open in new widow and Create the Link

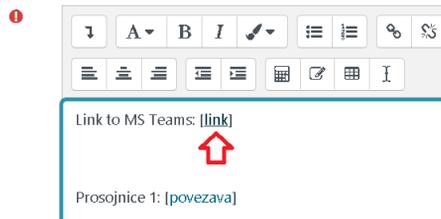


Link Established

- The link is now established (underlined)
- The student can now click the link to be redirected to MS Teams

▼ Vsebina

Vsebina strani



Link to MS Teams: [link]

Prosobjnice 1: [povezava]

Save the Page

- At the end, we should save the modified moodle page:



► Kompetence

Shrani in se vrni na učno enoto | Shrani in prikaži | Prekliči

V tem obrazcu so zahtevana polja označena z !

Prijavljeni ste kot Andrej Škraba (Odjavi)

OPTIMIRANJE IN SIMULACIJA SISTEMOV (17139)

Test the Link

- We should test the link by pressing `[povezava]` (`[[link]]`)

Univerza v Mariboru Slovensčina (sl) ▾

OPTIMIRANJE IN SIMULACIJA SISTEMOV

Domov / Učne enote / OPTIMIRANJE IN SIMULACIJA SISTEMOV (17139) / Poglavje 1 / Povezava do MS Teams in gradiva

Skrbnišтво

- ▾ Skrbništvo modula Strani
 - Uredi nastavitve
 - Lokalno določene vloge
 - Dovoljenja
 - Preveri dovoljenja
 - CS4

Povezava do MS Teams in gradiva

Povezava do MS Teams: `[povezava]`

Prosojnice 1: `[povezava]`

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Redirect to Browser

- The Link redirects us to Browser
- Open the link with MS Teams

OPTIMIRANJE IN SIMULACIJA SI: x Join conversation x +

teams.microsoft.com/dl/launcher/launcher.html?url=%2F...%23%2F%2Fteam%2F19%3Ac184097a47e849a786e4038372837d7a%40thread.tacv2%2Fcc...

Apps Bookmarks Mini PC RU TS WebGL CS4

Open Microsoft Teams?

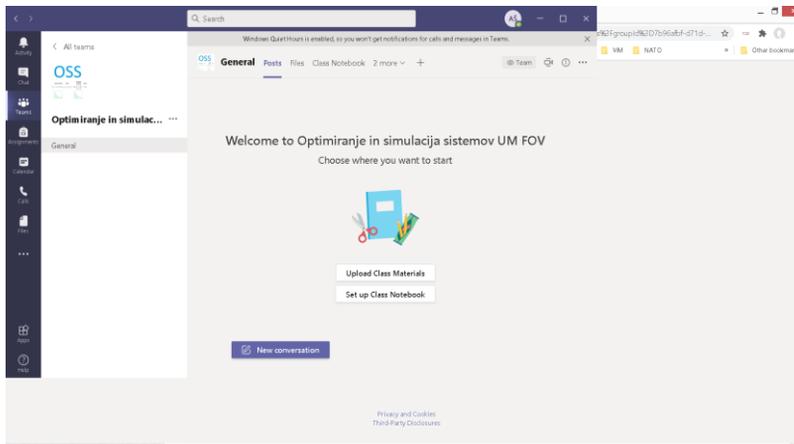
https://teams.microsoft.com wants to open this application.

Always allow teams.microsoft.com to open links of this type in the associated app

Open Microsoft Teams Cancel

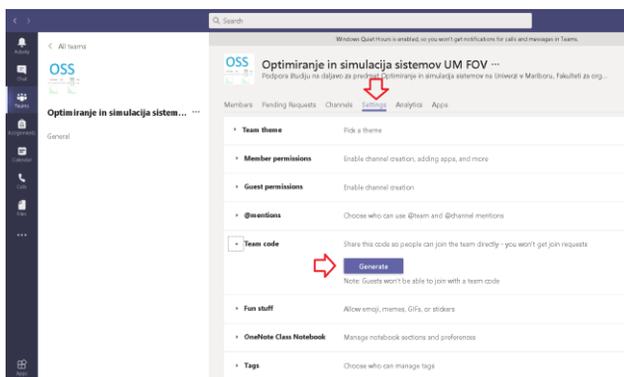
Entering MS Teams Class

- We get to the MS Teams Class (OSS in our case)



Generating the Code - Alternative

- Alternative is to generate the access code to the class



The Code

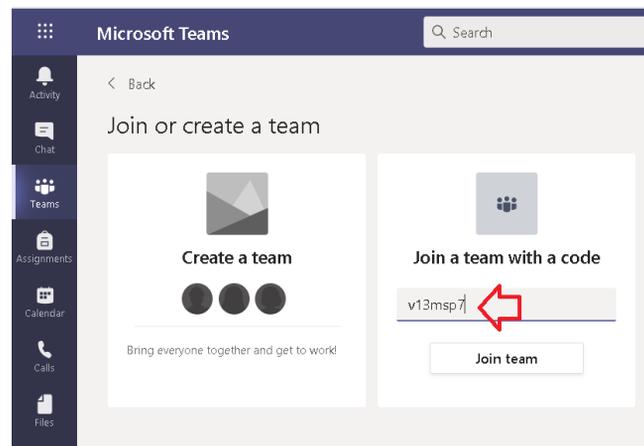
- The code for direct access is generated



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Access Directly

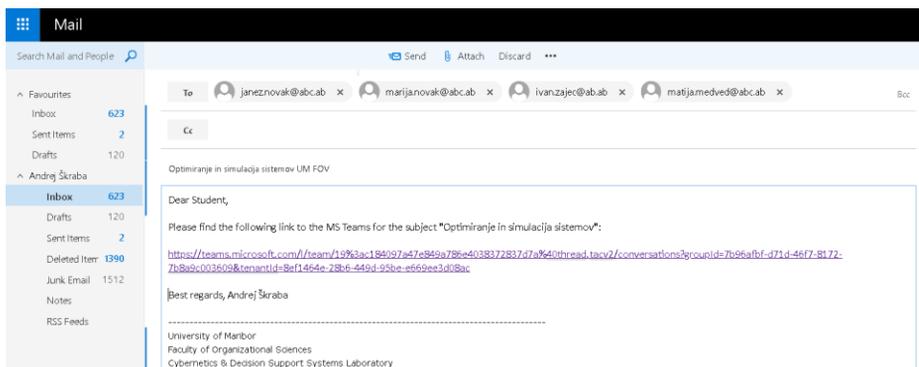
- One can access directly by going to MS Teams Application of Web version and enter previously generated code
- This enables the direct acces
- Anyone with the code can access
- After all students login the code could be altered and by this „random drop ins“ are blocked



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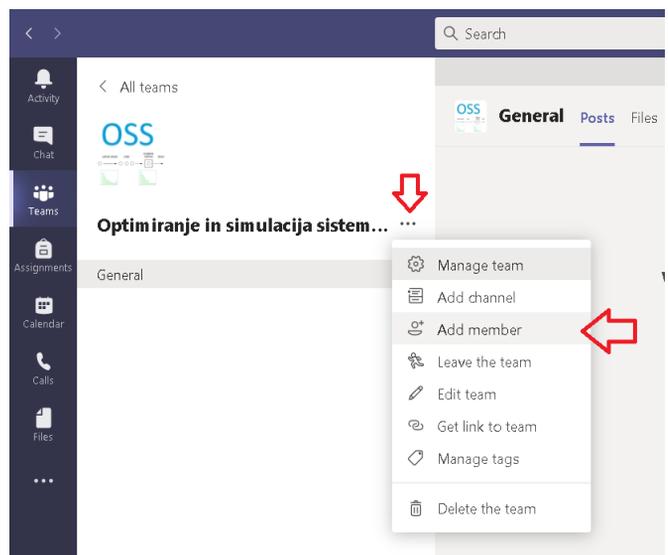
Alternative

- Alternative to putting the link to moodle Class (via materials or also Forum) would be to send the mails to the students
- The list of mail addresses should be prepared



Adding Members

- If the student does not have an MS Teams Identity, you can add her/his



External Participants

- If the student is in your organizational roster in our case @um.si then you can select it from the roster
- Otherwise you can add external member as a guest

Add members to Optimiranje in simulacija sistemov UM FOV

[Students](#) [Teachers](#)

kibernetika01@gmail.com

Add



Add kibernetika01@gmail.com as a guest



Close

Add the Member

- Now, you can add a new external member
- User gets the notification to inbox

Add members to Optimiranje in simulacija sistemov UM FOV

[Students](#) [Teachers](#)

kibernetika01 (Guest) ✎ ✕

Add

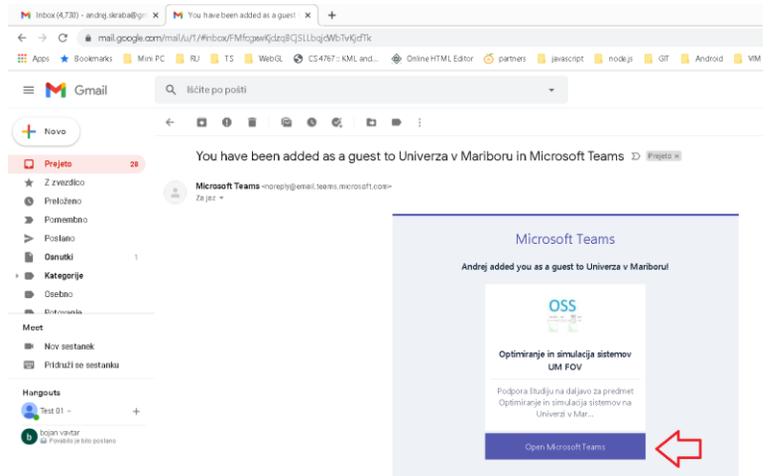


The screenshot shows a Gmail inbox with a notification from Microsoft Teams. The notification is titled "Microsoft Teams" and contains the text: "You have been added as a guest to Univerza v Mariboru in Microsoft Teams - Mi". Below this, it says "Fwd: f - Forwarded message - From: Andrej Škraba <andrej.skraba@gir>". The notification is marked as "Prejeto" (Received) and has a red arrow pointing to it. The notification is also marked as "Glavno" (Important) and "Družabno" (Social). The notification is also marked as "Promocije" (Promotions) and "26 novih" (26 new). The notification is also marked as "Olga Deutvareva, Seed Stud...".

Close

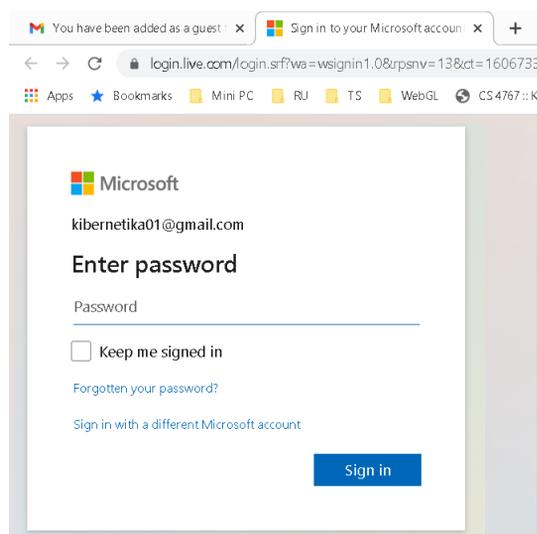
User Access

- Now user can access the MS Teams from the link in the mail



User Access – create an account

- User should create an account in order to get access
- Best option is, that the user gets the organizational identity
- By org. ID, the user can access full functionality

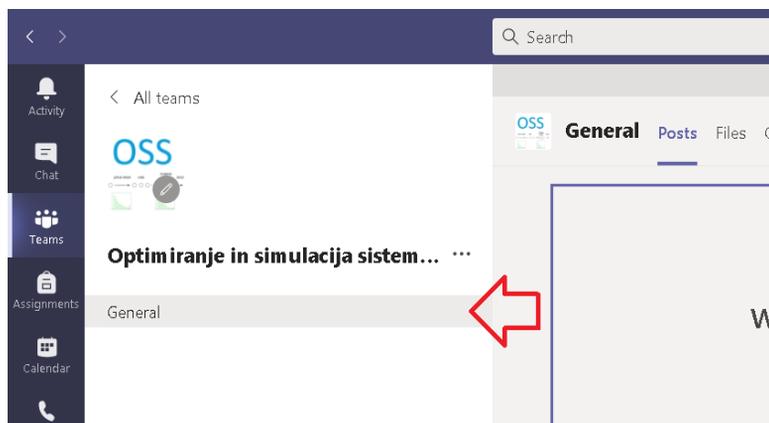


Channels

- Channels are dedicated sections within a team to keep conversations organized by specific topics, projects, disciplines etc.
- Files that you share in a channel are stored in SharePoint – integration
- Channels are places where conversations happen and where the work actually gets done
- Channels are most valuable when extended with apps that include tabs, connectors, and bots that increase their value to the members of the team

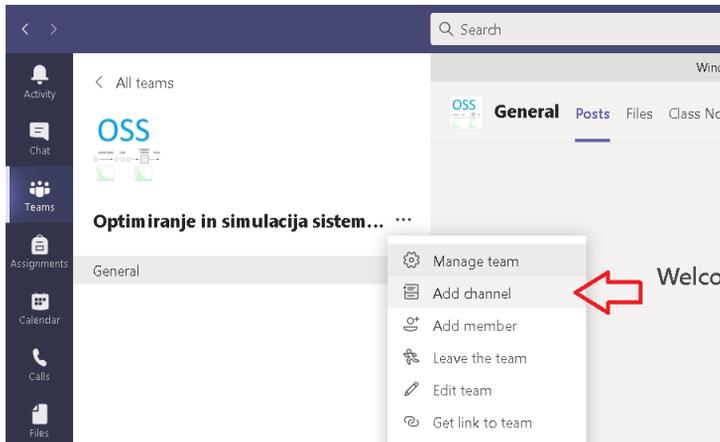
Channels (cont.)

- By default, one channel per Team is already created – General



Creating a Channel

- Click on the elyipsis (...) and select Add channel option



Creating a Channel – Adding Description

- Add description and select „Automatically show...“

Create a channel for "Optimiranje in simulacija sistemov UM FOV" team

Channel name
Lectures Optimiranje in simulacija sistemov

Description (optional)
Video lectures channel

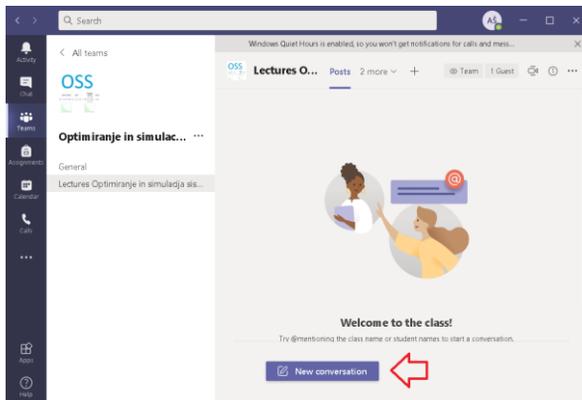
Privacy
Standard - Accessible to everyone on the team

Automatically show this channel in everyone's channel list

Cancel Add

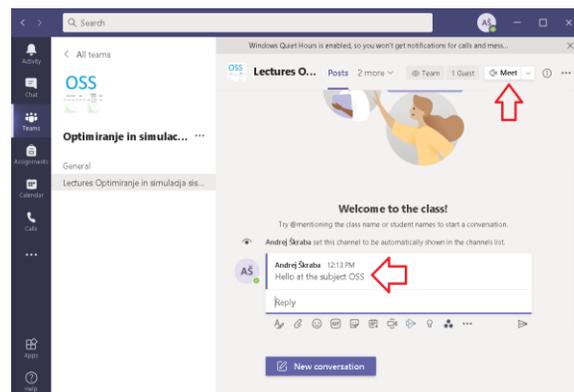
The Channel is Created

- We should add a new conversation



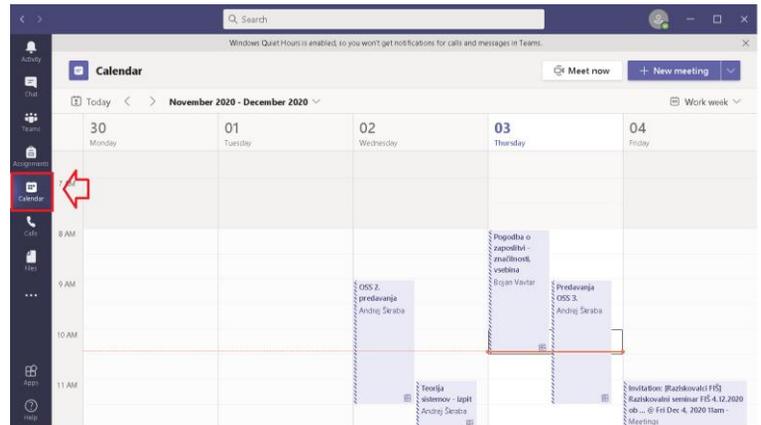
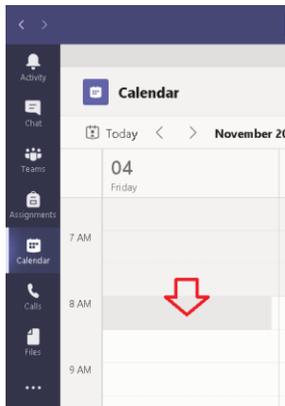
The Channel is Created

- We can write something in discussion using @ mark
- Most important, to start the lectures, we should click on the Meet button



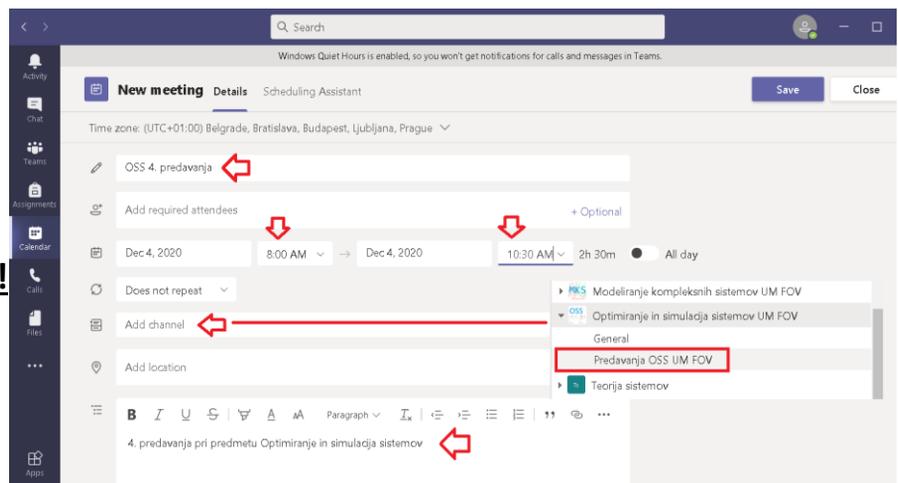
How to Plan a Lecture, Tomorrow at 8:00?

- Go to Calendar
- Click on desired timeslot



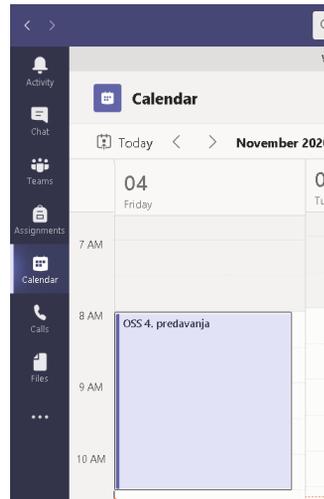
How to Plan a Lecture, Tomorrow at 8:00? (c.)

- Enter title
- Start time
- End time
- **Add Channel of subject OSS/Predavanja!**
- Add desc.



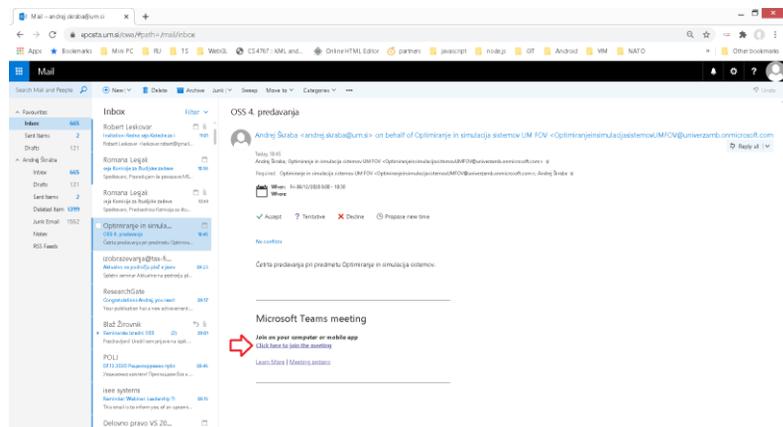
How to Plan a Lecture, Tomorrow at 8:00? (c.)

- Lectures are planned in the Calendar



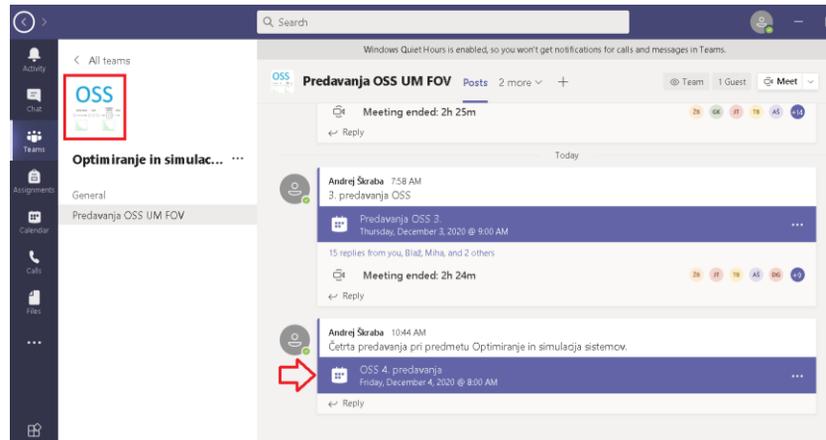
How to Plan a Lecture, Tomorrow at 8:00? (c.)

- Students are informed about the scheduled lecture via mail



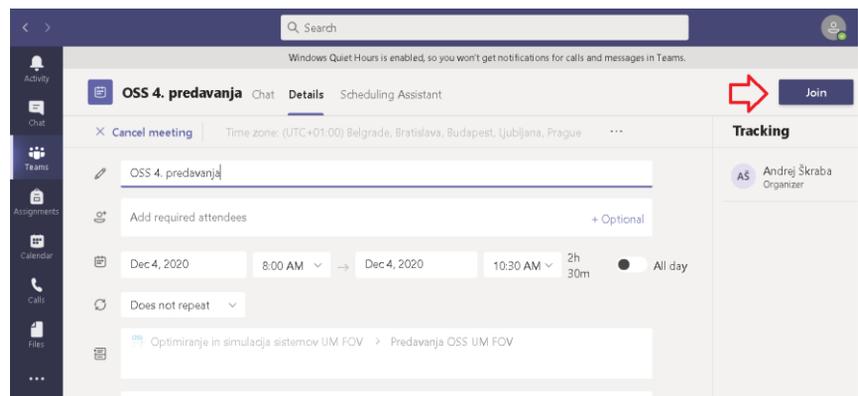
How to Plan a Lecture, Tomorrow at 8:00? (c.)

- Now the lectures can be seen in our OSS/ Predavanja ... channel
- If you click on the lectures to test the functioning of the system ->



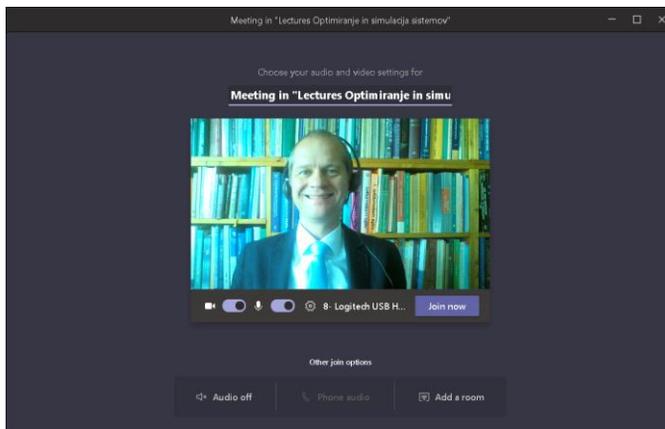
How to Plan a Lecture, Tomorrow at 8:00? (c.)

- ... you can press the button Join



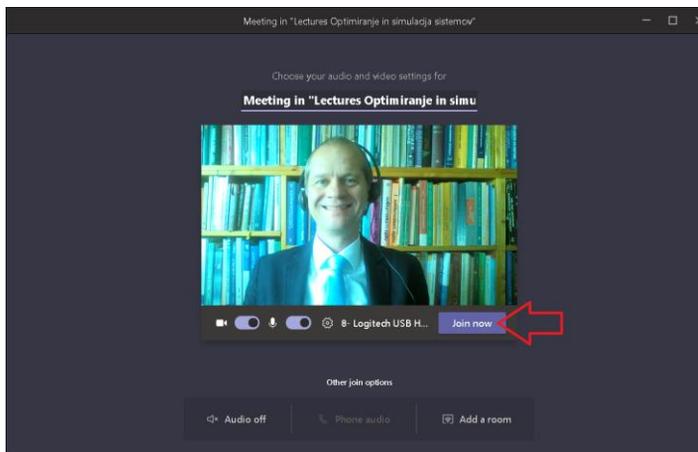
Prepare

- ... and Prepare yourself to start lecturing (as a test):



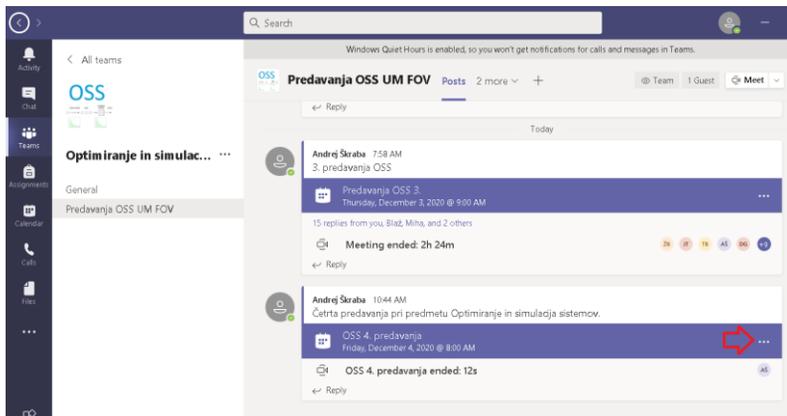
Prepare

- When ready to start, camera and sound OK, click on „Join now“



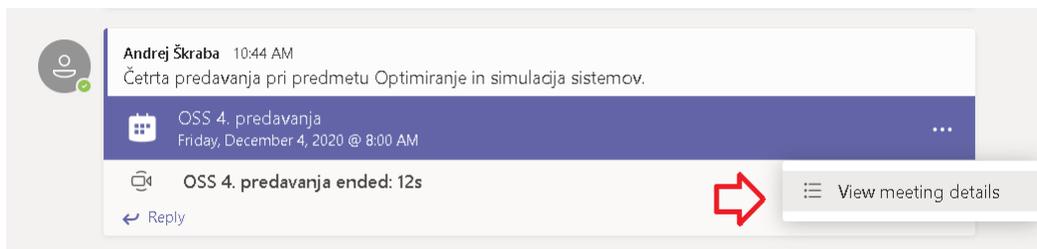
How to send link to student(s)

- If you want to send the link to the lecture to the students, directly, maybe to someone that is not in current student group, go to (...):



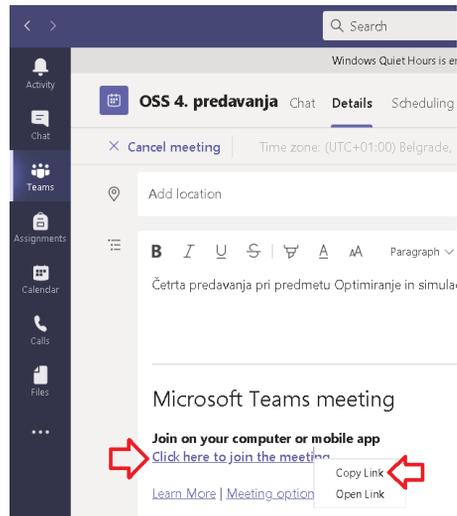
How to send link to student(s) (cont.)

- Meeting details pops up:



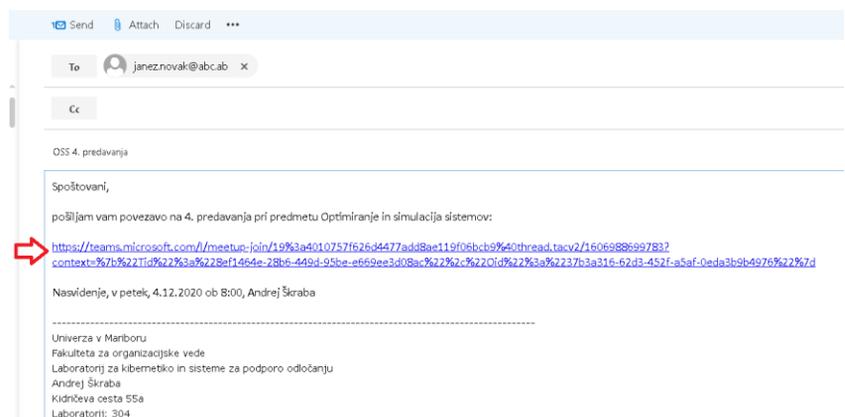
How to send link to student(s) (cont.)

- Go to the end of meeting details on „Click here to join the meeting“
- Right click the mouse and select „Copy Link“



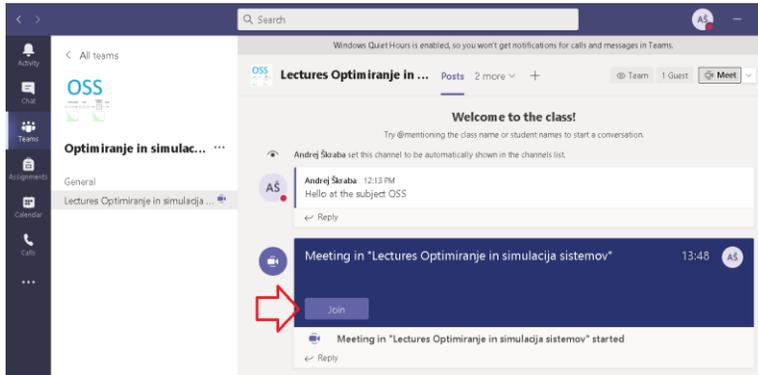
How to send link to student(s) (cont.)

- Now, you can paste the link in your email and send it directly to student(s)



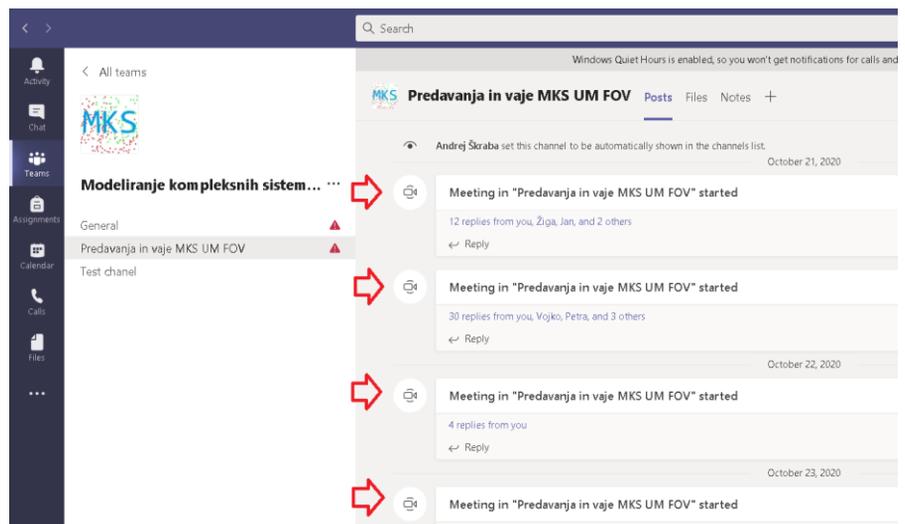
Students Joining

- Students can see that the Meeting in „Lectures ...“ has been started
- Students can Join the meeting



Class LogBook

- Each start of the lectures is logged to the channel together with the discussion



Lectures start

- Students can see the following interface



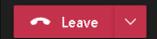
The functionalities

- The main functionalities can be accessed via the toolbar:



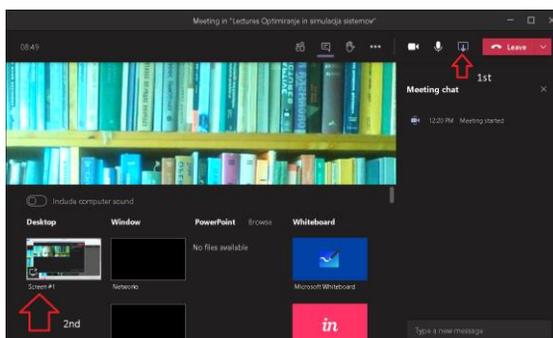
-  Show participants
-  Chat
-  Raising hand
-  Turn camera on/off
-  Turn microphone on off

The functionalities (cont.)

-  Share screen – to show the slides or table
-  Leave the lectures

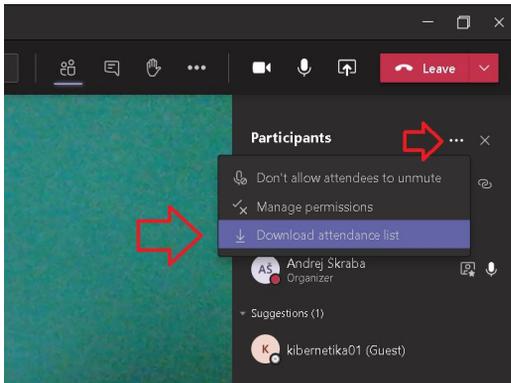
Share the desktop

- 1st click on the Share icon | 2nd select the desktop to share
- The Powerpoint slides and other material can be shown from the user desktop



List of Participants

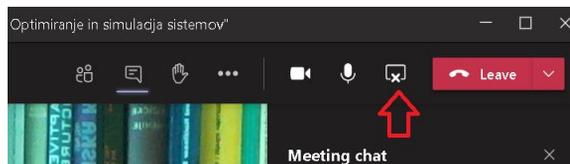
- Attendance list can be downloaded by pressing (...)
- List is saved in Excel file



| | A | B | C | D | E | F |
|---|---------------|-------------|-------------------------|---|---|---|
| 1 | Full Name | User Action | Timestamp | | | |
| 2 | Andrej Škraba | Joined | 11/30/2020, 12:19:46 PM | | | |
| 3 | Marija Novak | Joined | 11/30/2020, 12:20:19 PM | | | |
| 4 | Janez Novak | Joined | 11/30/2020, 12:20:45 PM | | | |
| 5 | | | | | | |

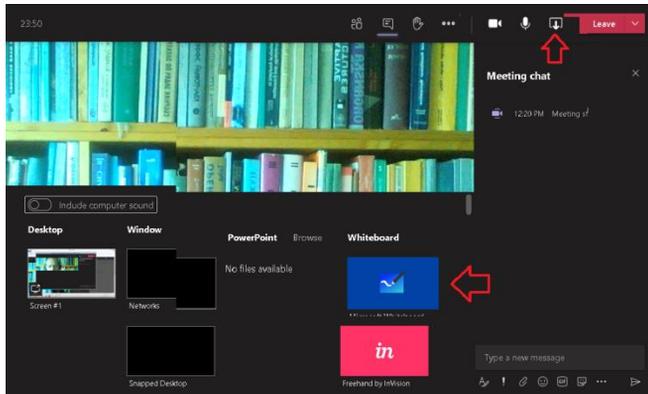
Stop Sharing

- After start of Sharing, the desktop will be bordered with red color
- If you want to stop the Sharing, the Stop Share icon (with cross x) should be pressed



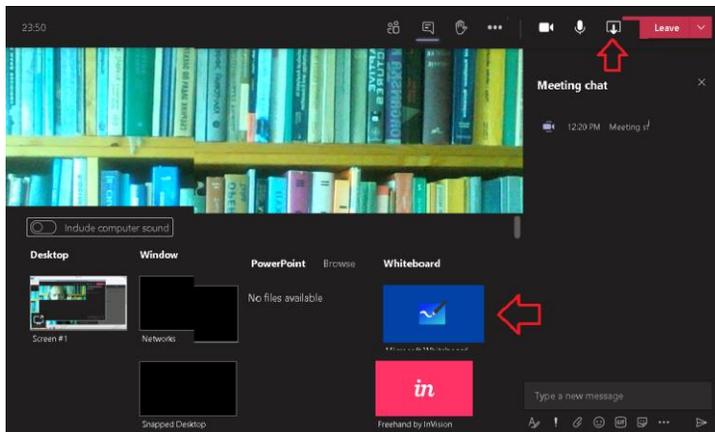
Using Tablet

- You can also share the tablet – MS Whiteboard or some other app



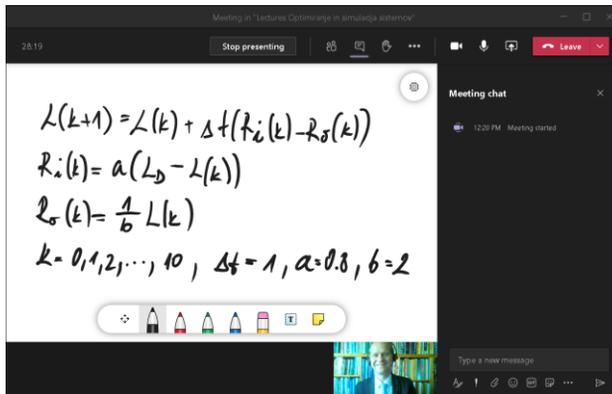
Using Tablet

- You can also share the tablet – MS Whiteboard or some other app



Using Tablet (cont.)

- Example of Tablet output
- Other Applications might be more appropriate



Tablet

- Model:
Wacom
Bamboo CTH-661
- Affordable
- Newer models
- Easy to use

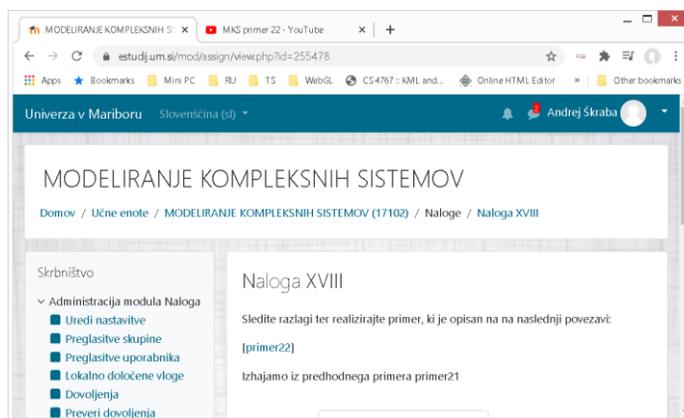


Hybrid Approach

- 2020 changed the education branch
- Nothing will be the same
- Offline lectures put on YouTube like Khan Academy are more efficient
- 10 min short, focused videos 20 min tops
- Harder to produce quality material
- Open to public – important to improve
- Discussion and evaluation of content – prime importance
- Improve by Feedback

Hybrid Approach (cont.)

- Link from moodle to YouTube: <https://youtu.be/d76BTGvVpW8>



Hybrid Approach (cont.)

- Possibility to reach broader audience
- YouTube: https://youtu.be/19X0anqR_rM
- Could not be done by classical means



Organizing Virtual Conference in 2020

- Euromicro DSD/SEAA 2020 Conference
- Organizing conference in the time of pandemic is a challenging task
- Entire classical setup should be transformed to the virtual one
- Difference:
 - Costs
 - Ecological impact
 - Time
- However, virtual conferences negatively impacts the GDP
- Find a new way to achieve the real communication
- Social impact that is lost in virtual meetings
- Challenging task for the future

Technologies

- Zoom – 7 licences
- 6 paralel tracks up to 100 participants
- 1 plenary track with up to 300 participants
- Upload the videos and slides before the conference
- DropBox for upload of the videos
- Application to preview the uploaded material
- YouTube upload of videos
- Euromicro YouTube channel established
- Long lasting value

Organizational Aspect

- Local organizing committee: 7 members present all the time to cover 1 keynote and 6 parallel sessions
- Each session leader had two computers:
 - As a meeting leader
 - As a participant – to see the screen of the participants
- Recording of the talks
- Assistance at the presentations

Organization

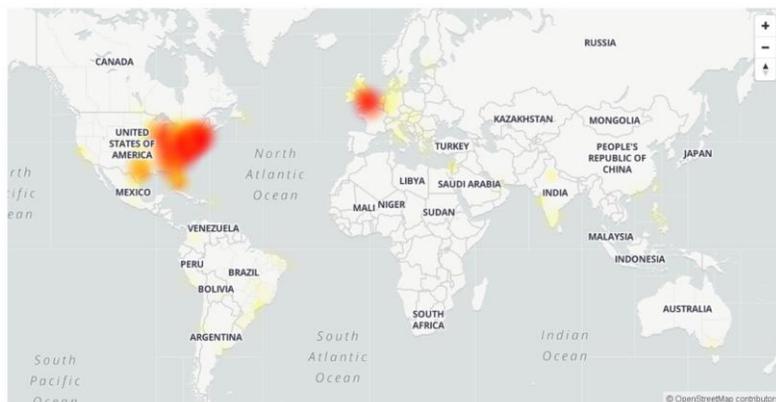
- Team members in the PC equipped classroom
- From home
- Remote work



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Zoom Caveats

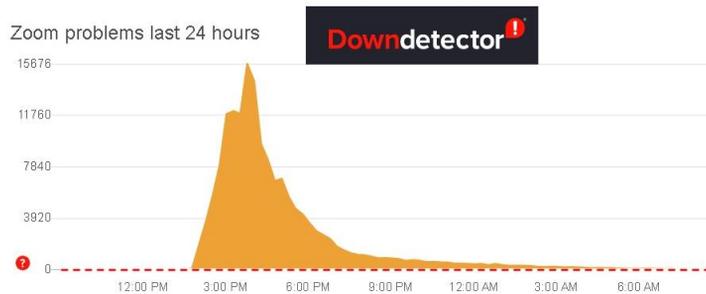
- Global crush in August



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Zoom Caveats (cont.)

- Good to have alternative plan
- MS Teams
- YouTube pre-uploaded videos



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Access

- Lecture Rooms Switchboard was prepared on the conference site
- Participants can select the desired track
- Passwords were used, distributed before the conference

Euromicro DSD/SEAA 2020

dsd-seaa2020.um.si/conferenceprogram.html

Euromicro DSD/SEAA 2020 Main Call For Papers Pr

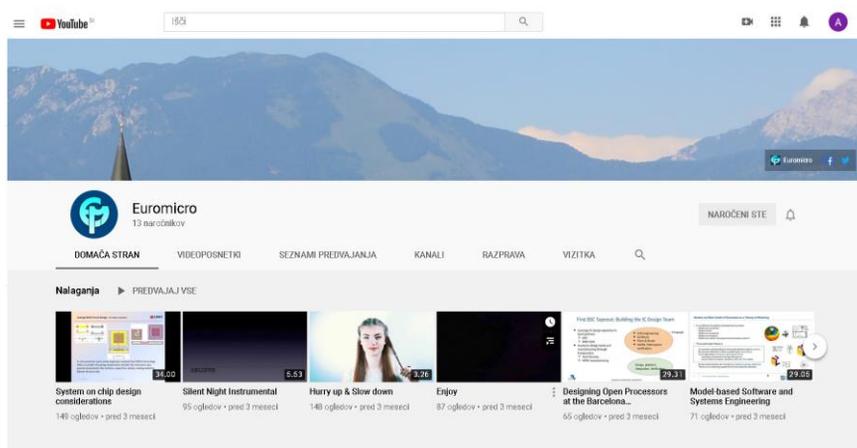
Zoom

The conference will be conducted using Zoom virtual meetings software. Please check the technology before the working of the Zoom each work day MO-FRI between 14:00 and 15:00 (CEST (Central European Summer Time)) (up to 25th of August, please make the test rather early on). Please check the track number that you

| Track | Button (click to open Zoom session) | Active |
|------------|-------------------------------------|----------|
| Track1DSD | Track1DSD | Active M |
| Track2DSD | Track2DSD | |
| Track3DSD | Track3DSD | |
| Track1SEAA | Track1SEAA | |
| Track2SEAA | Track2SEAA | |
| Track3SEAA | Track3SEAA | |
| Keynotes | Keynotes | |

Results

- Euromicro YouTube Channel was established



Comparison to Zoom

- Zoom is easier for quick setup
 - No confusion
 - Easily accessible link
 - Technically excellent
 - Easy navigation
 - Affordable licensing
- MS Teams
 - Harder to get yourself around
 - Important advantage if your organization is already using MS products:
 - Integration with Microsoft Ecosystem
 - Benefits integrating with other applications

Future

- One could anticipate, that the moodle will incorporate the web videoconferencing possibility
- Combination with YouTube – broader audience in science is important
- Possibility to get the comments and discussion
- Environmental aspect
- Lowering of the cost

Sources

- MS Teams (2020) <https://www.microsoft.com/en-US/microsoft-365/microsoft-teams>, Accessed: 30.11.2020
- UM ICT Coordinators' Group (2020) Predavanja na daljavo UM, <https://univerzamb.sharepoint.com/sites/PredavanjanadaljavoUM>, Accessed: 30.11.2020, Internal documentation
- A. K. Porenta (2020) FOV delavnica MS Teams, Internal documentation
- MS Teams Limits (2020) <https://docs.microsoft.com/en-us/microsoftteams/limits-specifications-teams>, Accesed: 30.11.2020