

User Authorization with Windows 10

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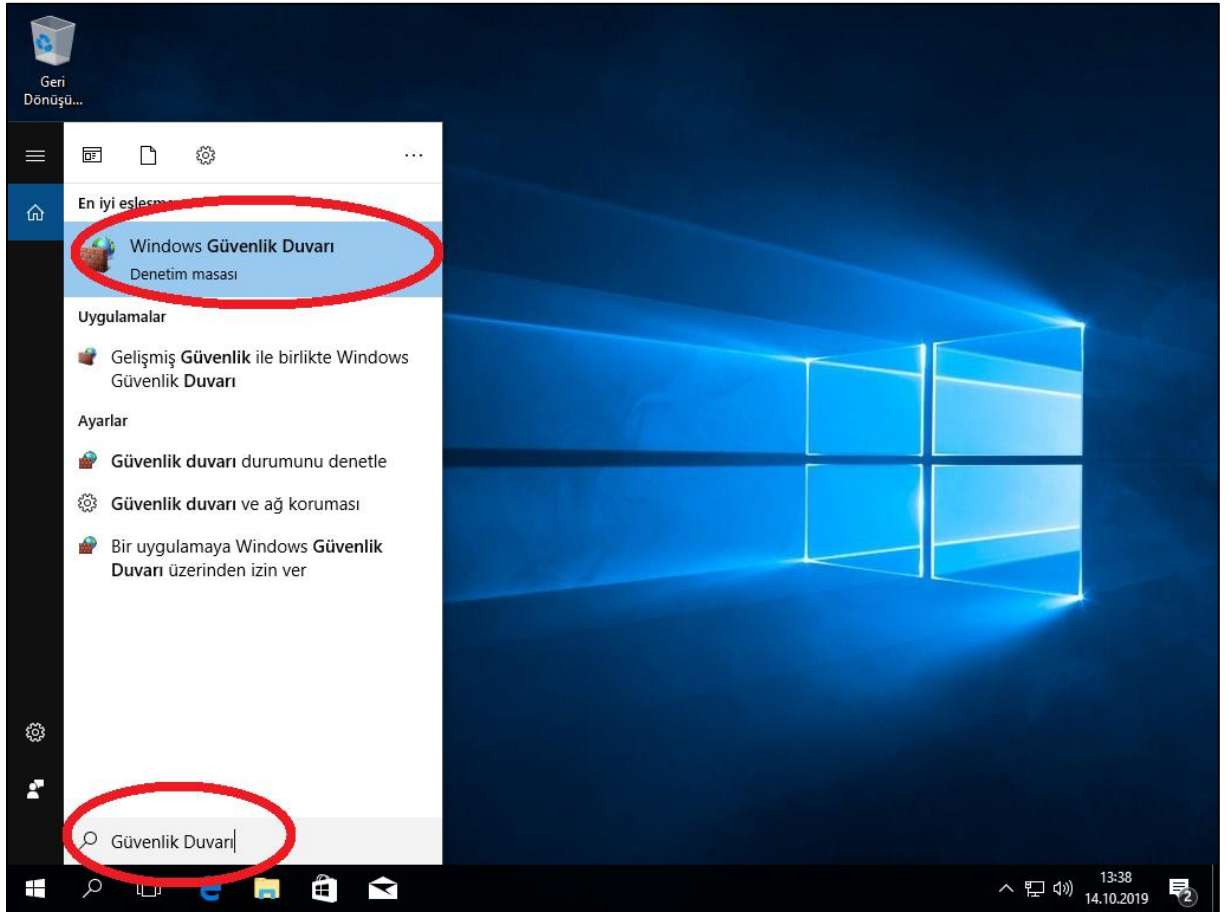
1. Purpose

The purpose of this project is to familiarize ourselves with user authorization in Windows 10 and deny access to certain features to selected users. This is potentially a very useful skill to practice now as in our careers later we might be demanded to manage authorization to various hosts in the network. In this project, we create 4 non-admin users in Windows 10 and deny access to a specific feature for each of them: USB access, reading CD-ROM, changing Desktop background and hiding and disabling everything on the Desktop. We do this via using Microsoft Management Console. In addition to authorization management, we also turn off the Firewall and enable Remote Access in case we need it later. Disabling the Firewall and enabling Remote Access is shown first.

2. Procedure

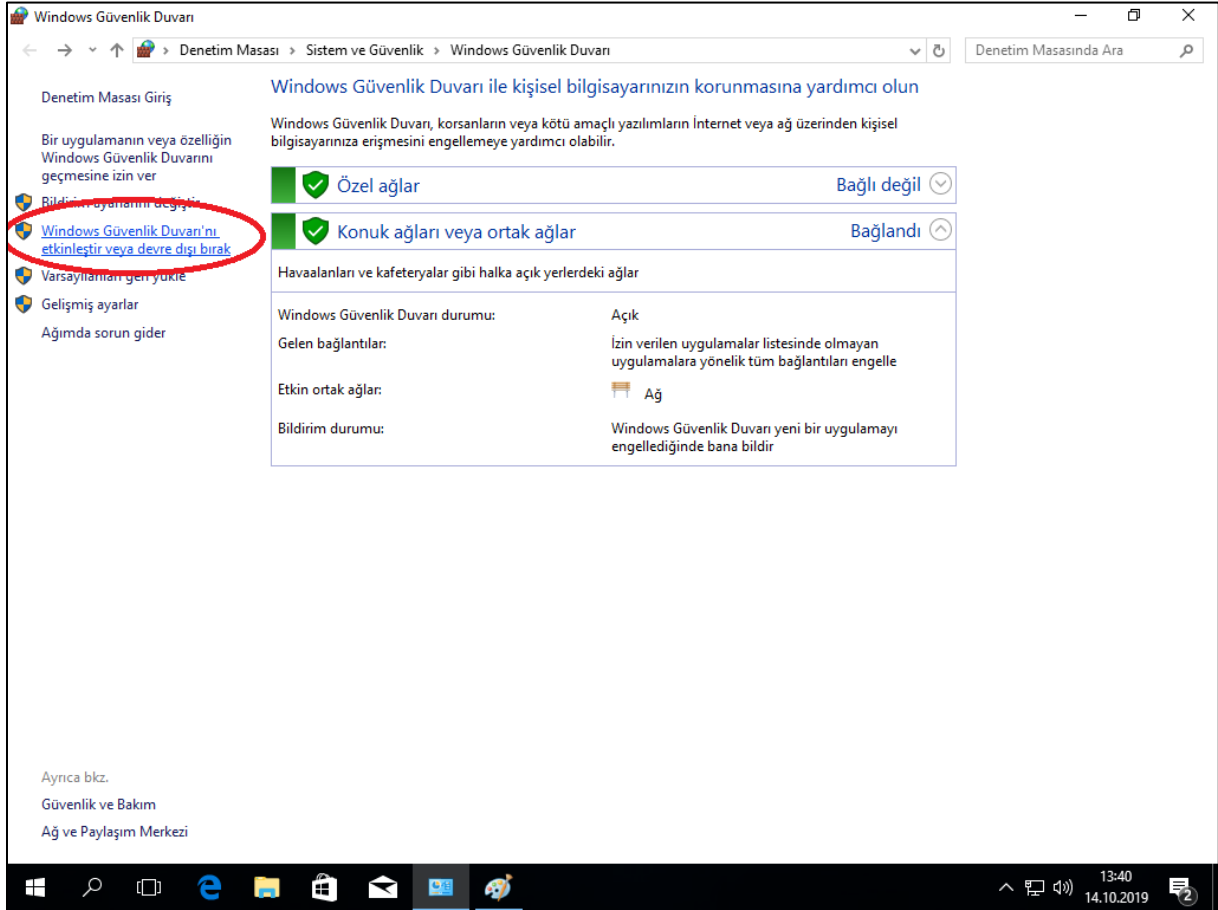
I. Turning off the Firewall.

The first step is to turn of the Firewall. We search for Firewall on the search bar.

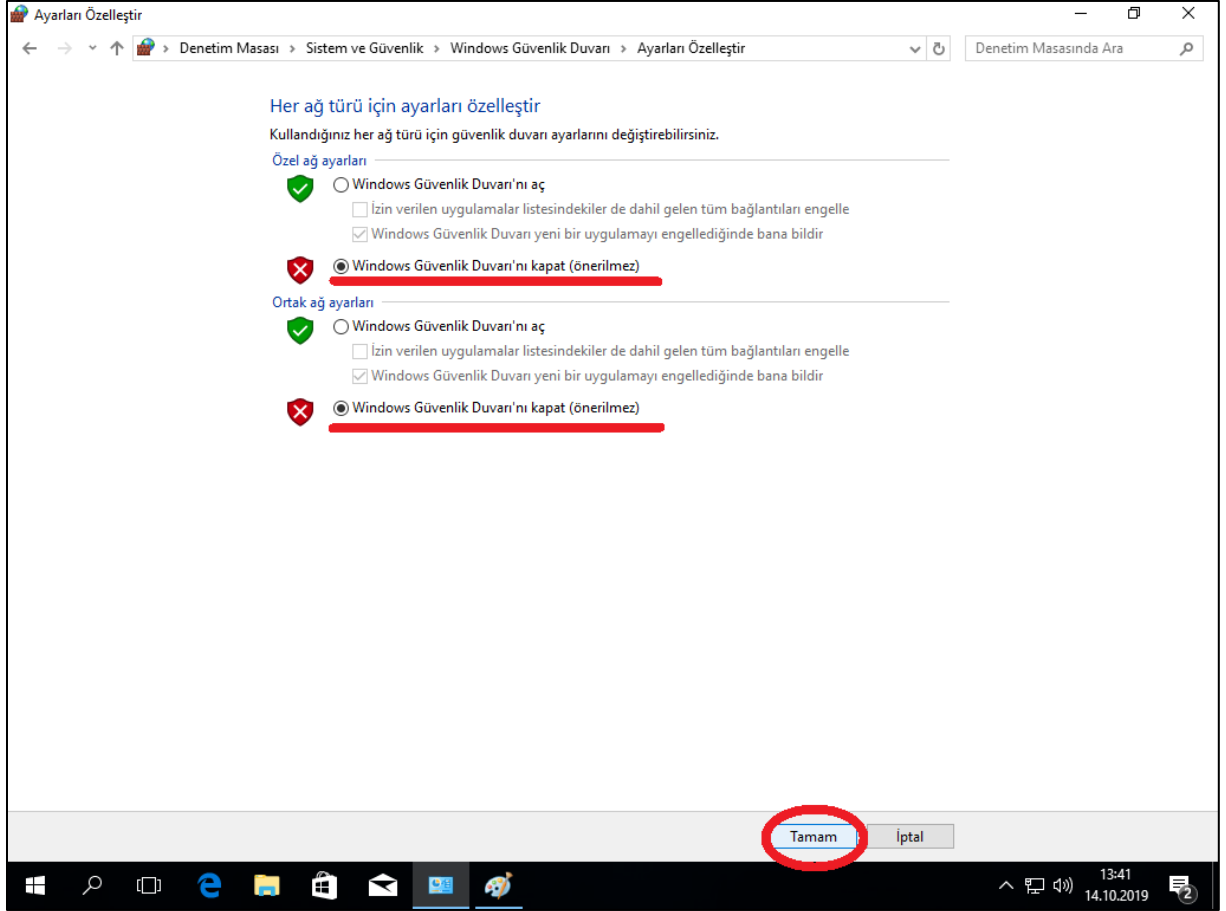


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Currently Firewall is on. We click on the section on the left that says Enable or Disable Windows Firewall.

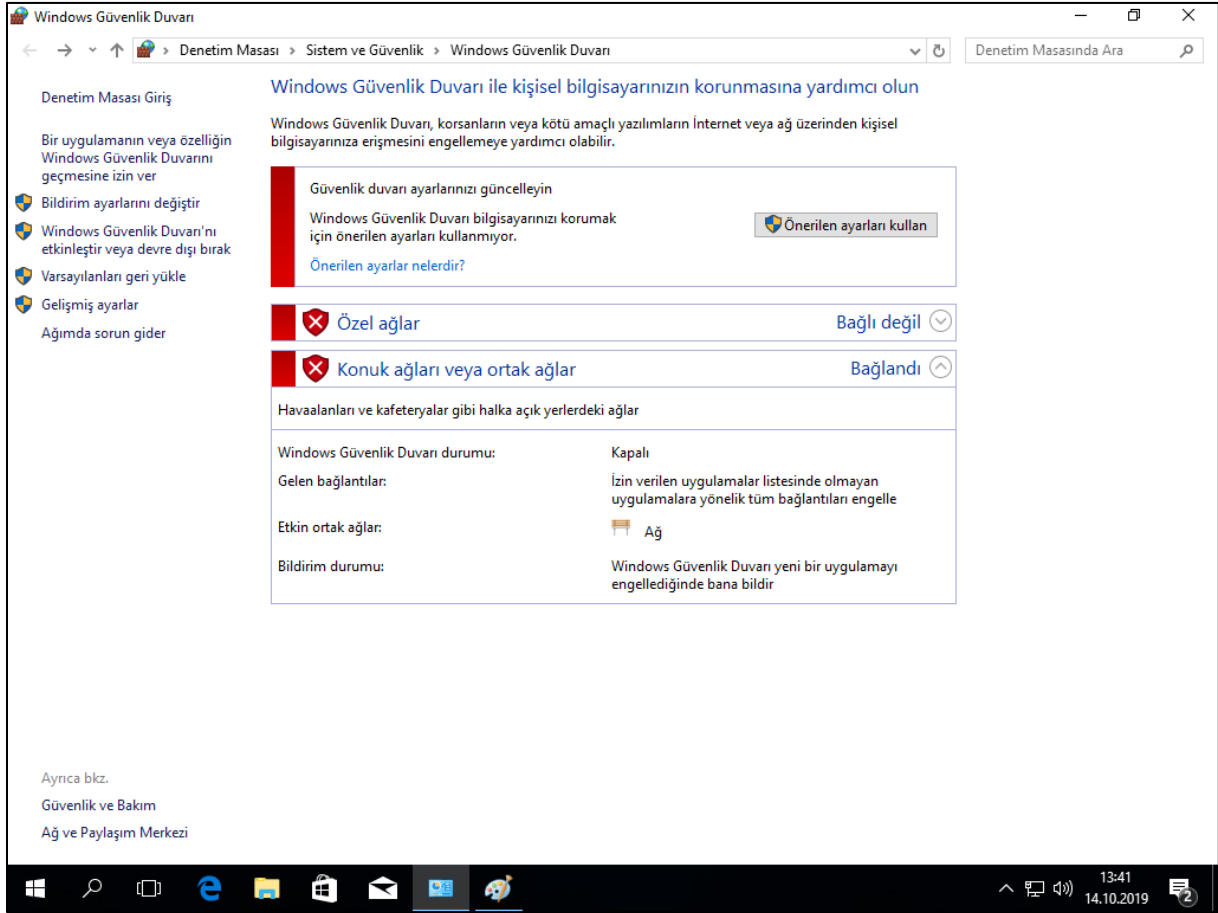


We select disable Firewall for both Private and Public Networks and click OK.



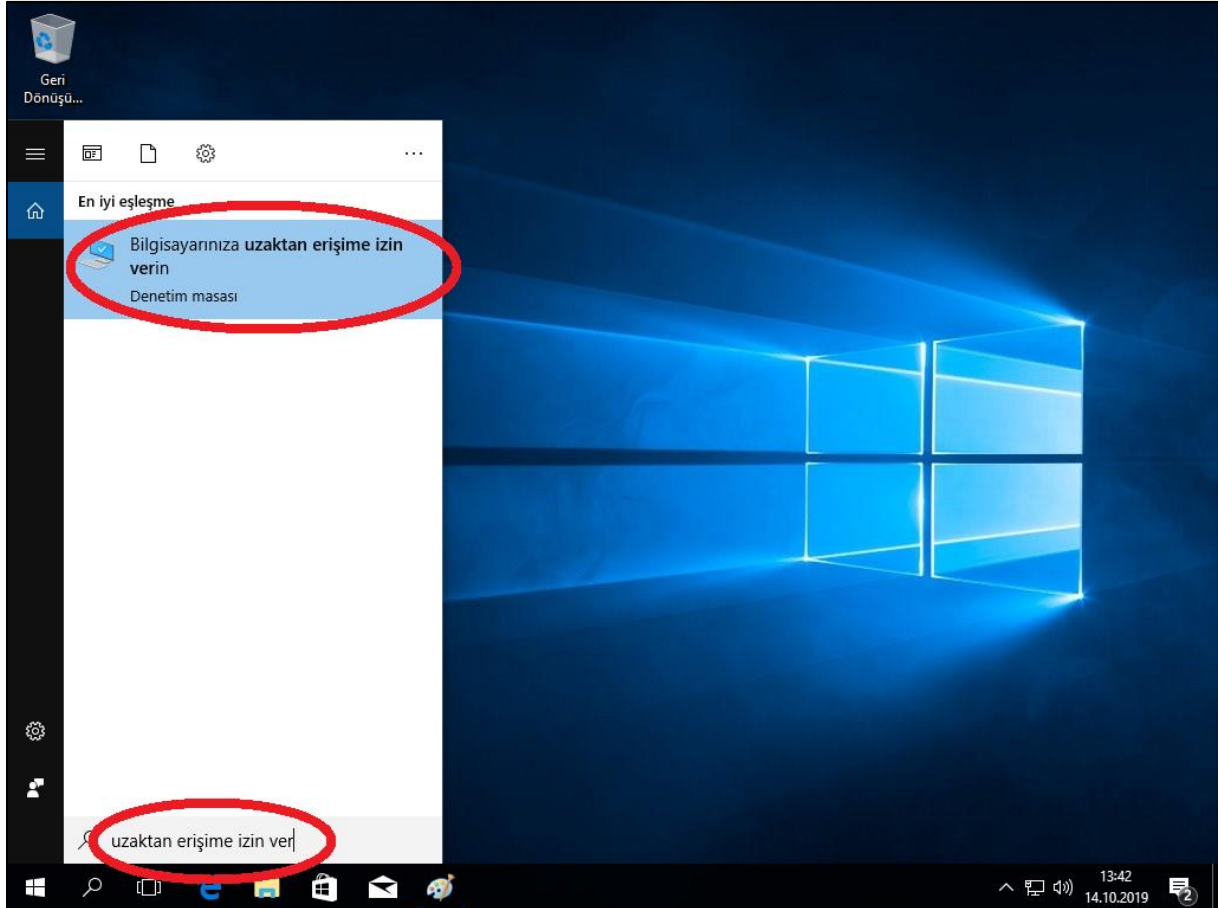
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Now the Firewall is down as we can observe.



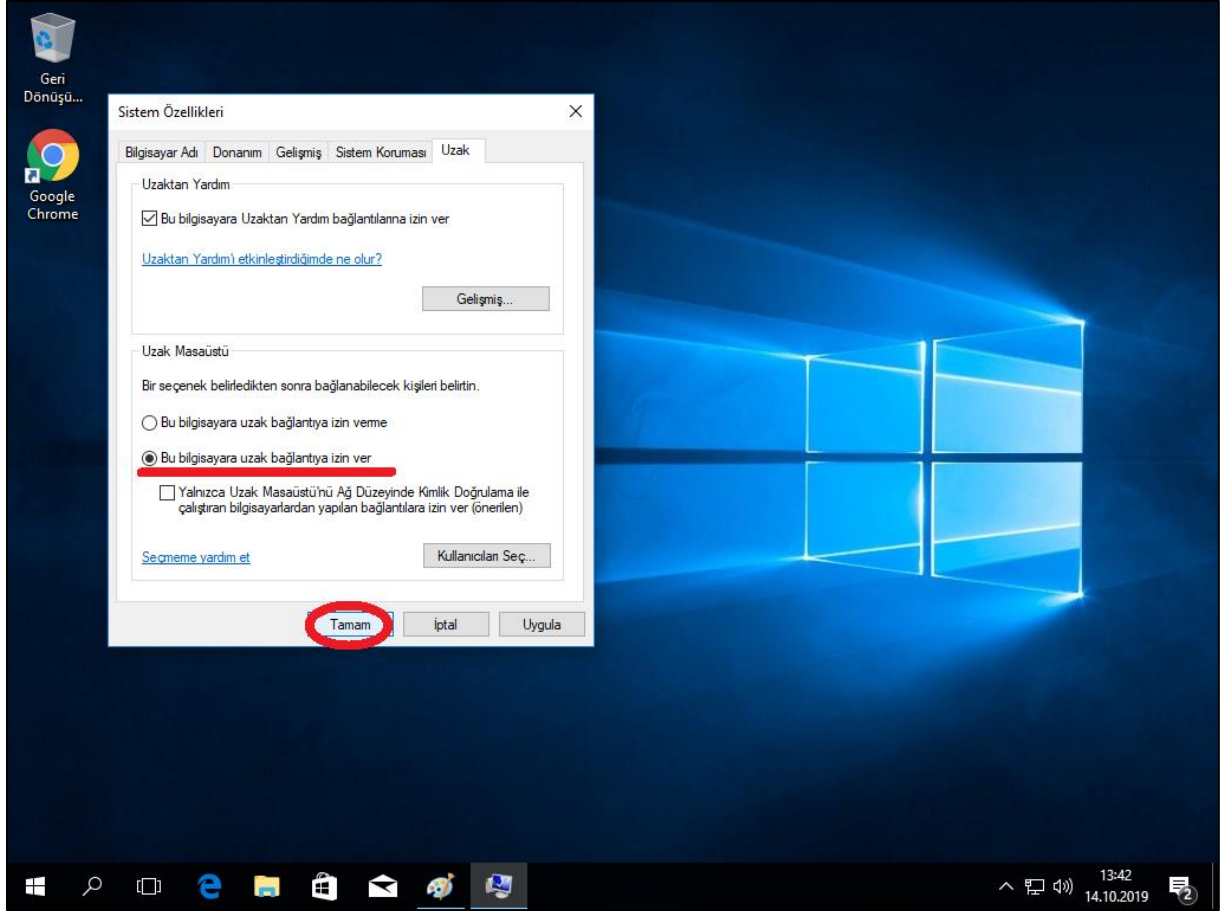
II. Enabling Remote Access

We start by searching Remote Access on the search bar to select Enable Remote Access.



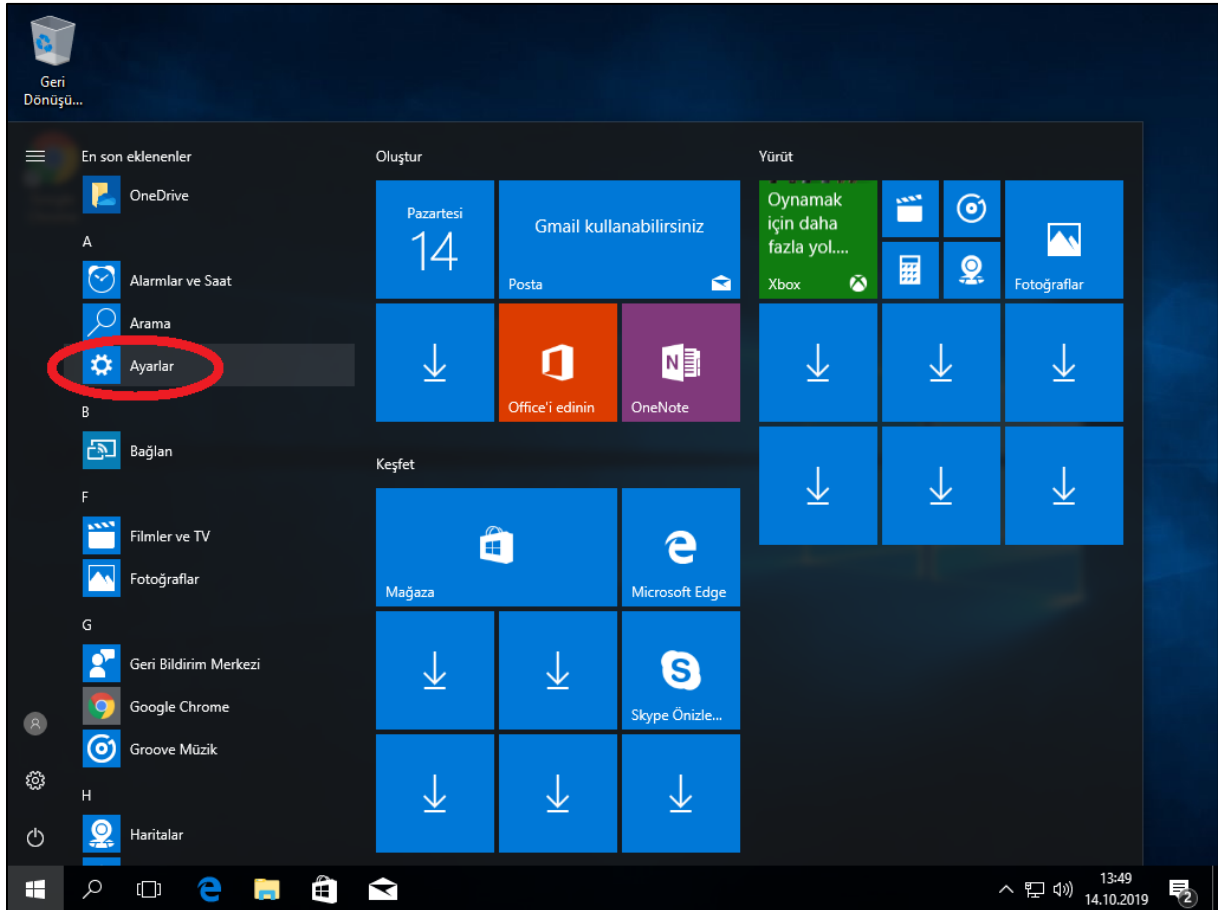
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On the panel that opens we select Enable Remote Access to this computer. And select OK.



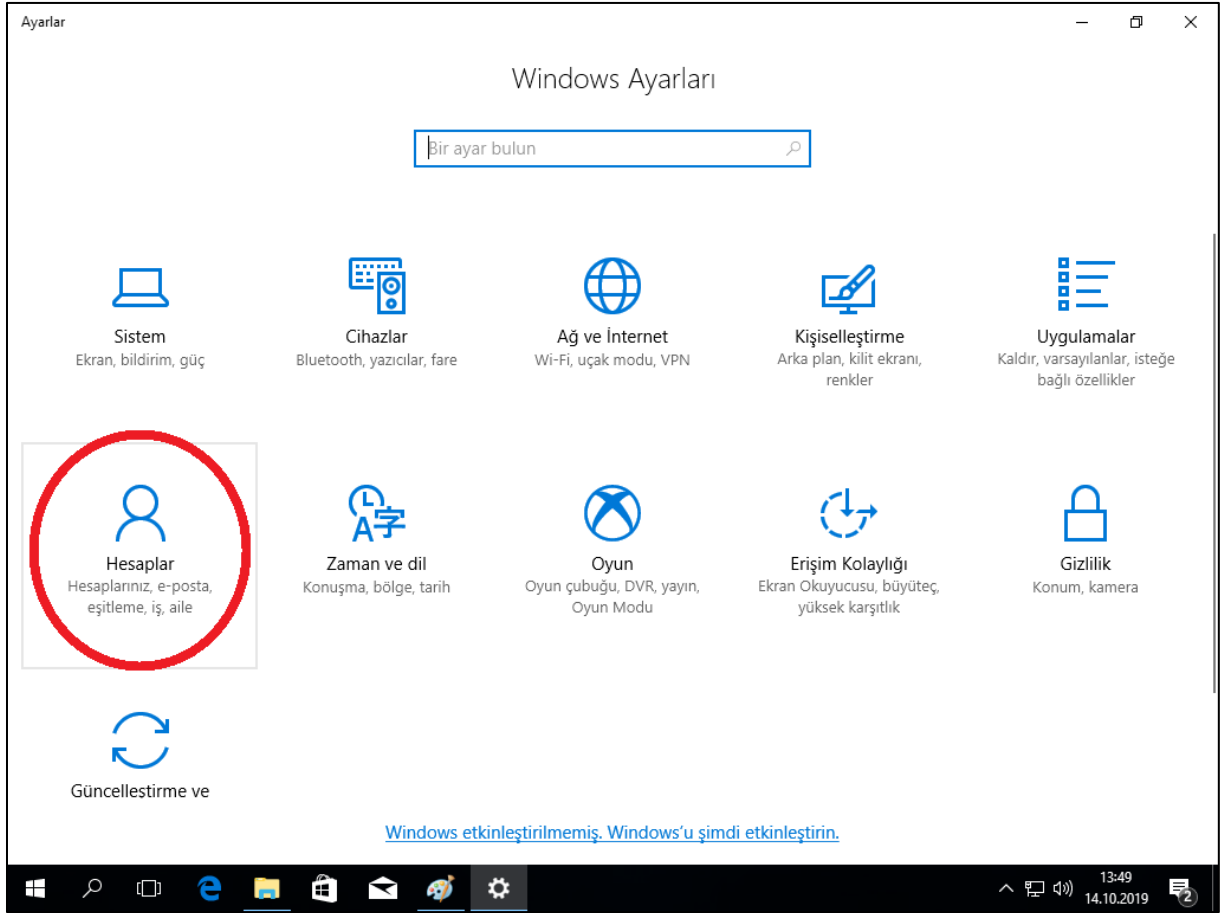
III. Creating 4 new users

First we need to get to Settings.

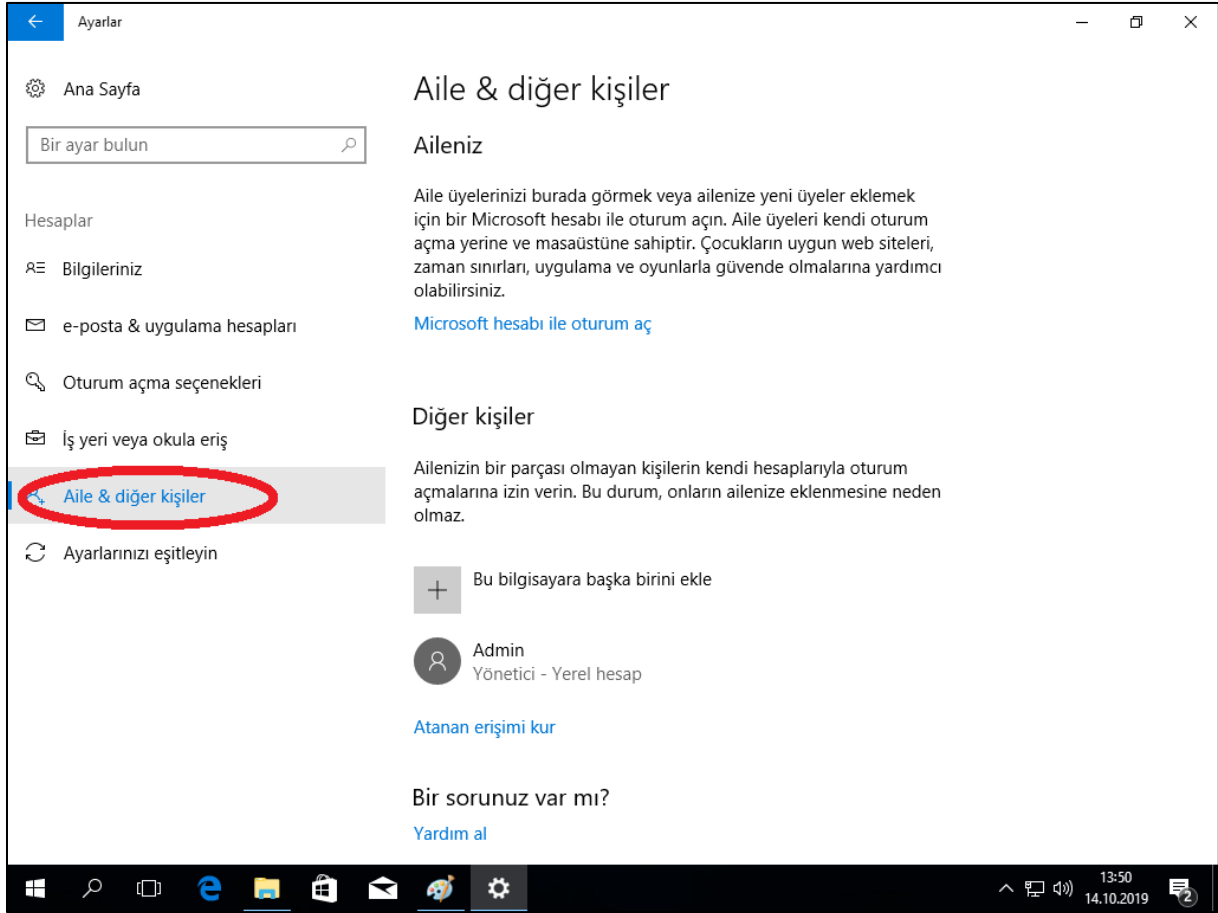


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Under Settings we go to Accounts.

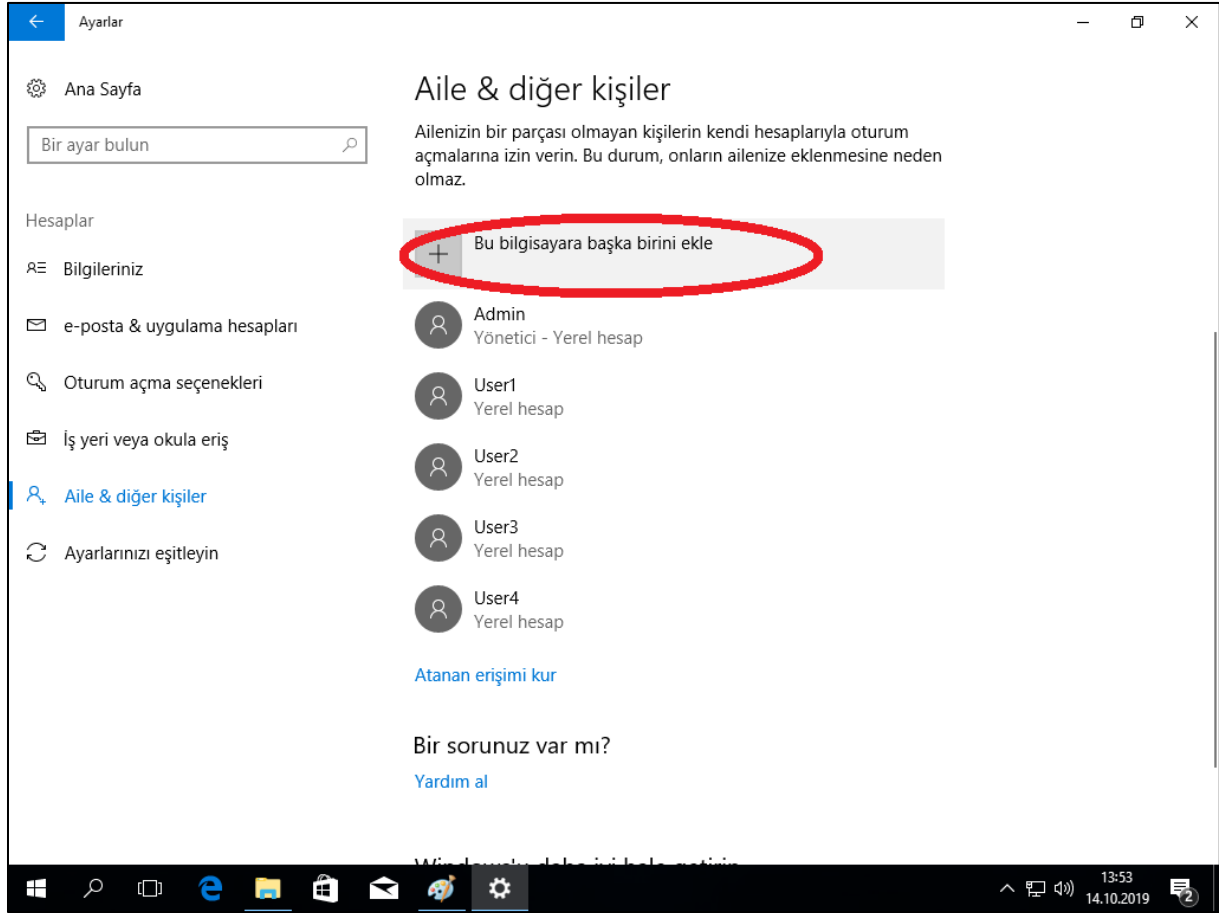


We go to Family & other users.

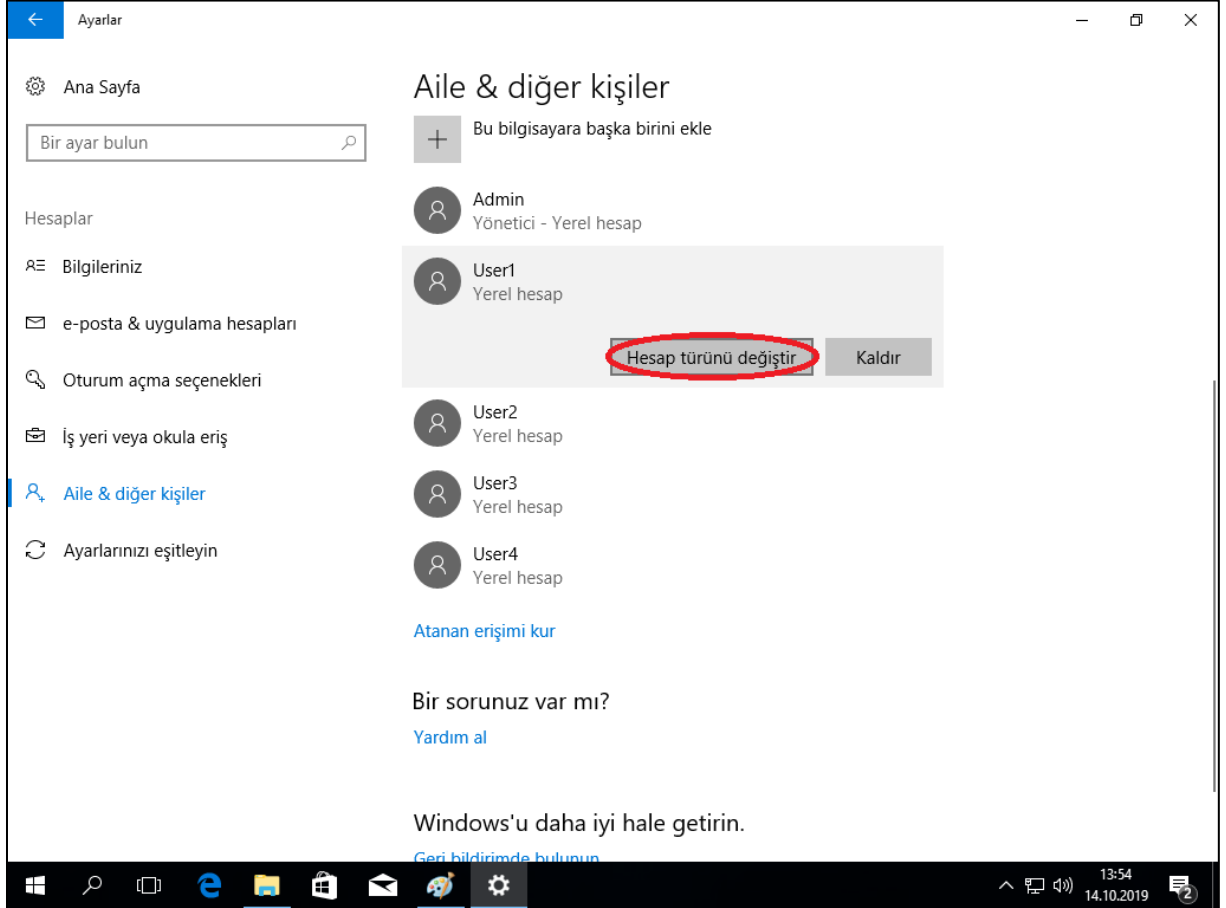


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We add another user to this computer using the depicted button. We created users 1 to 4.

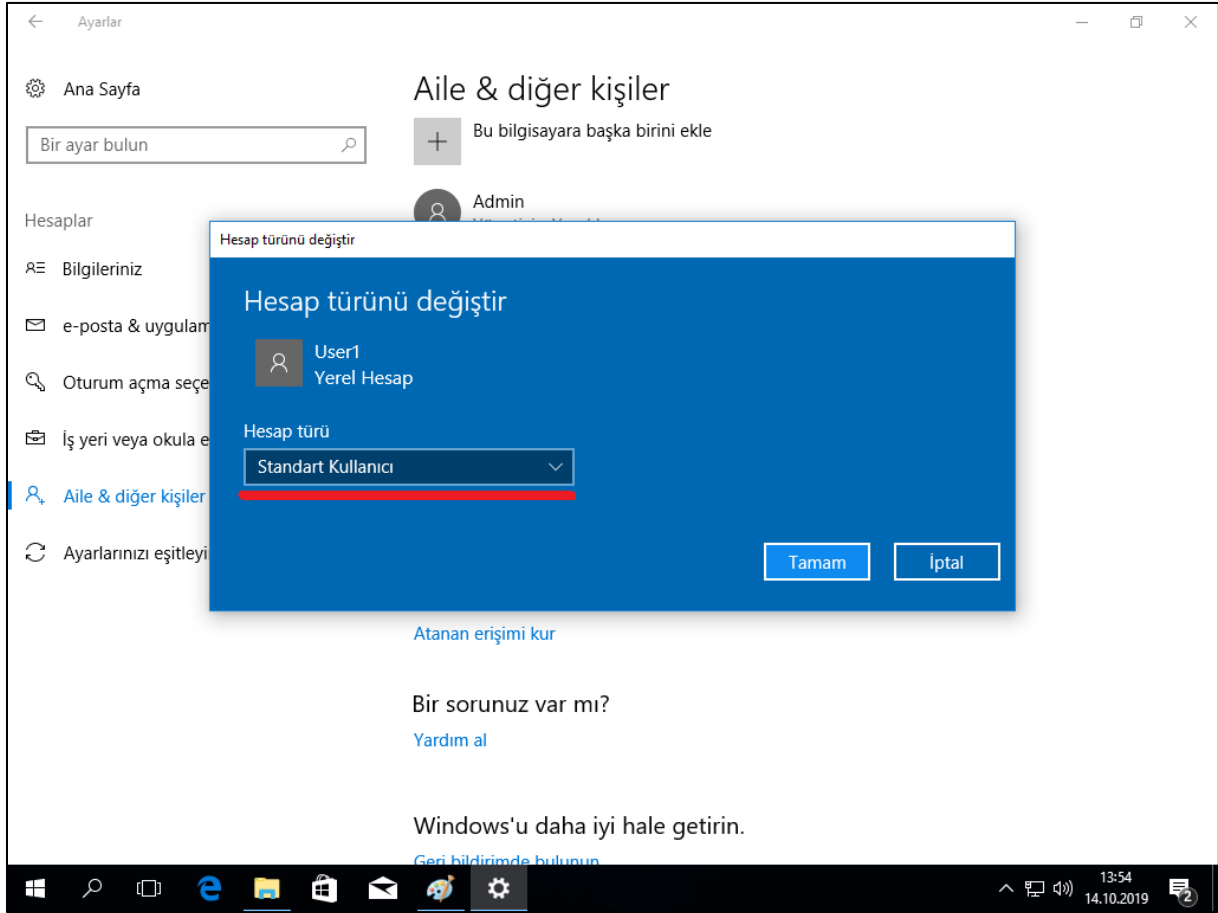


We want to make sure that these new accounts are indeed non-admin. So we use change account type button...



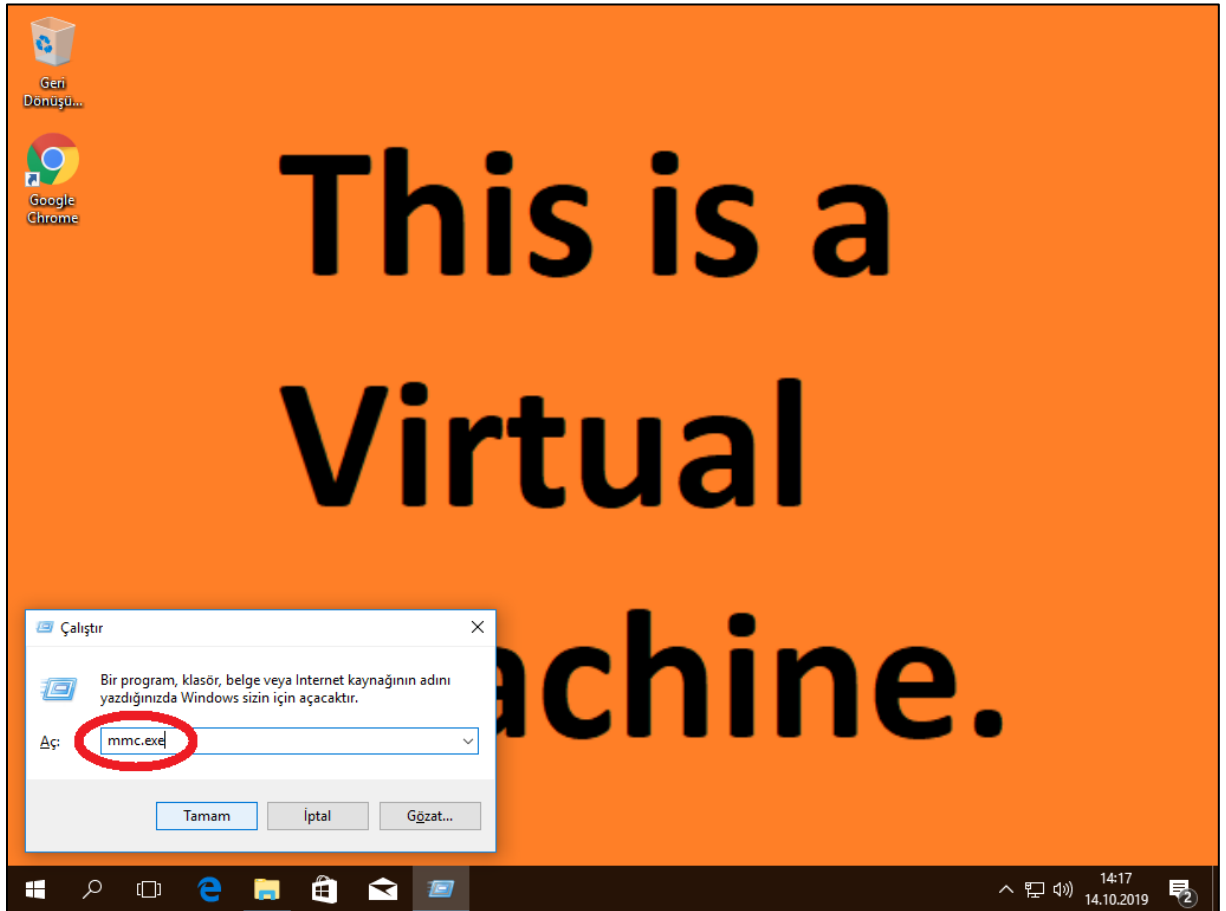
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... to make sure that their account types are Standard.



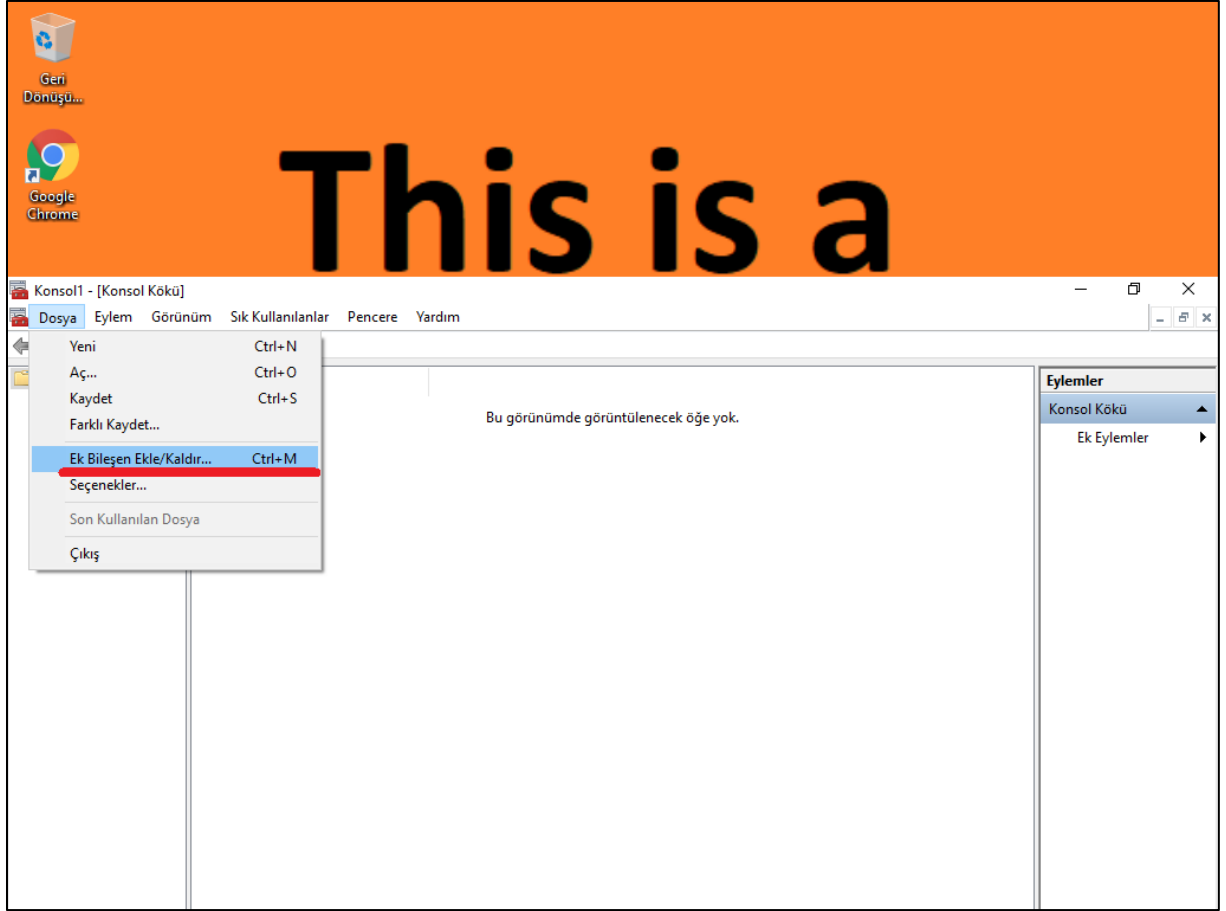
IV. Authorization

Firstly, we need to go to where we can do our authorization process: Microsoft Management Console. We open Run via pressing Windows + R and run mmc.exe on Run.

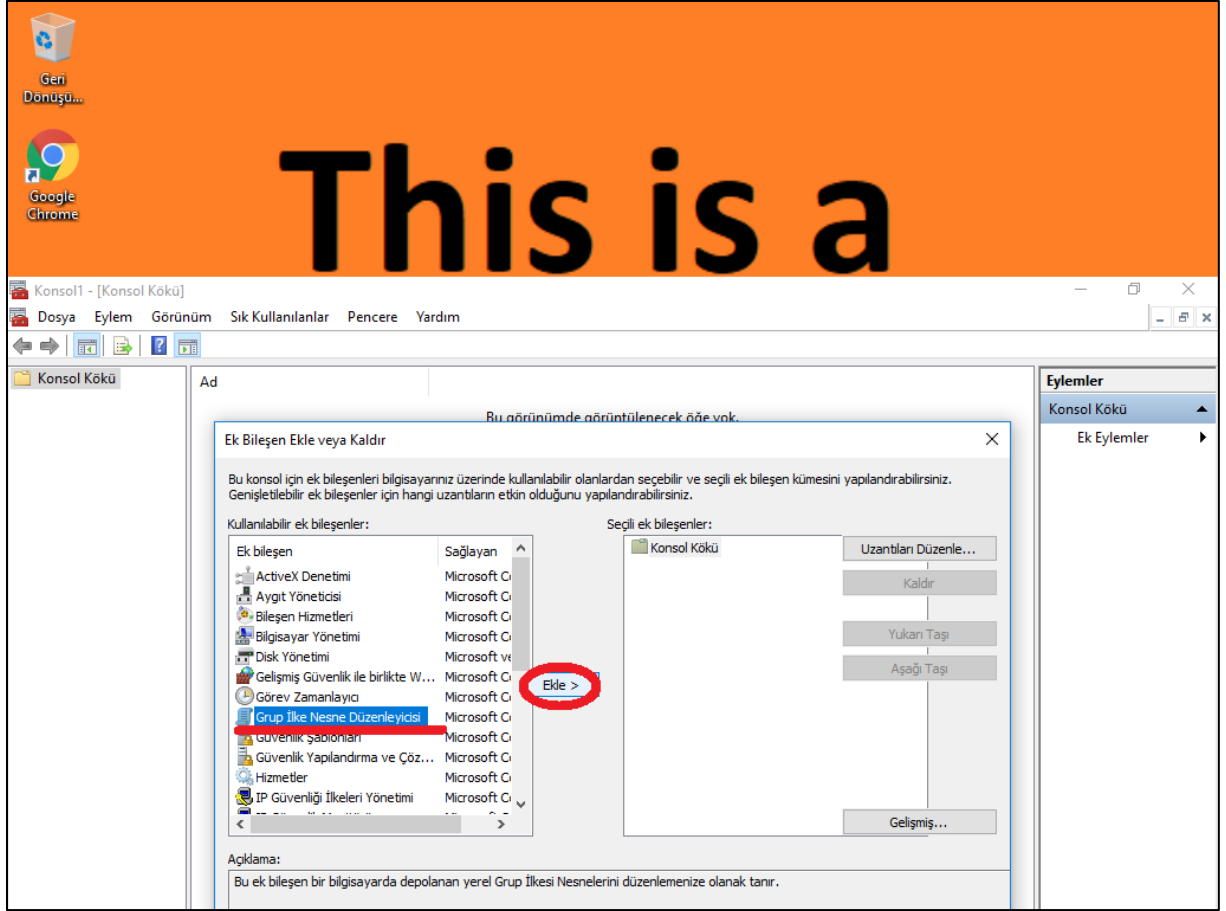


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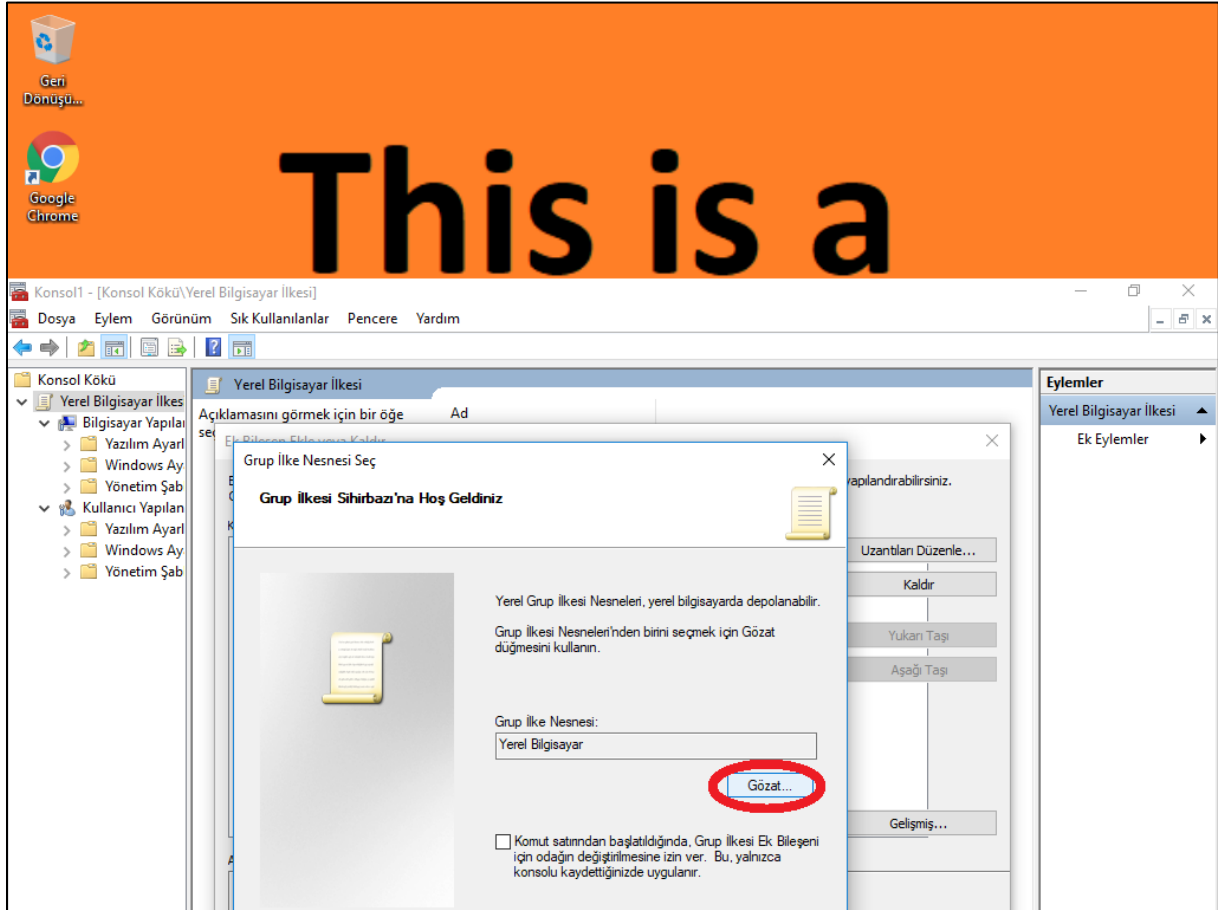
On the console, under File we go to Add/remove Additional Component:



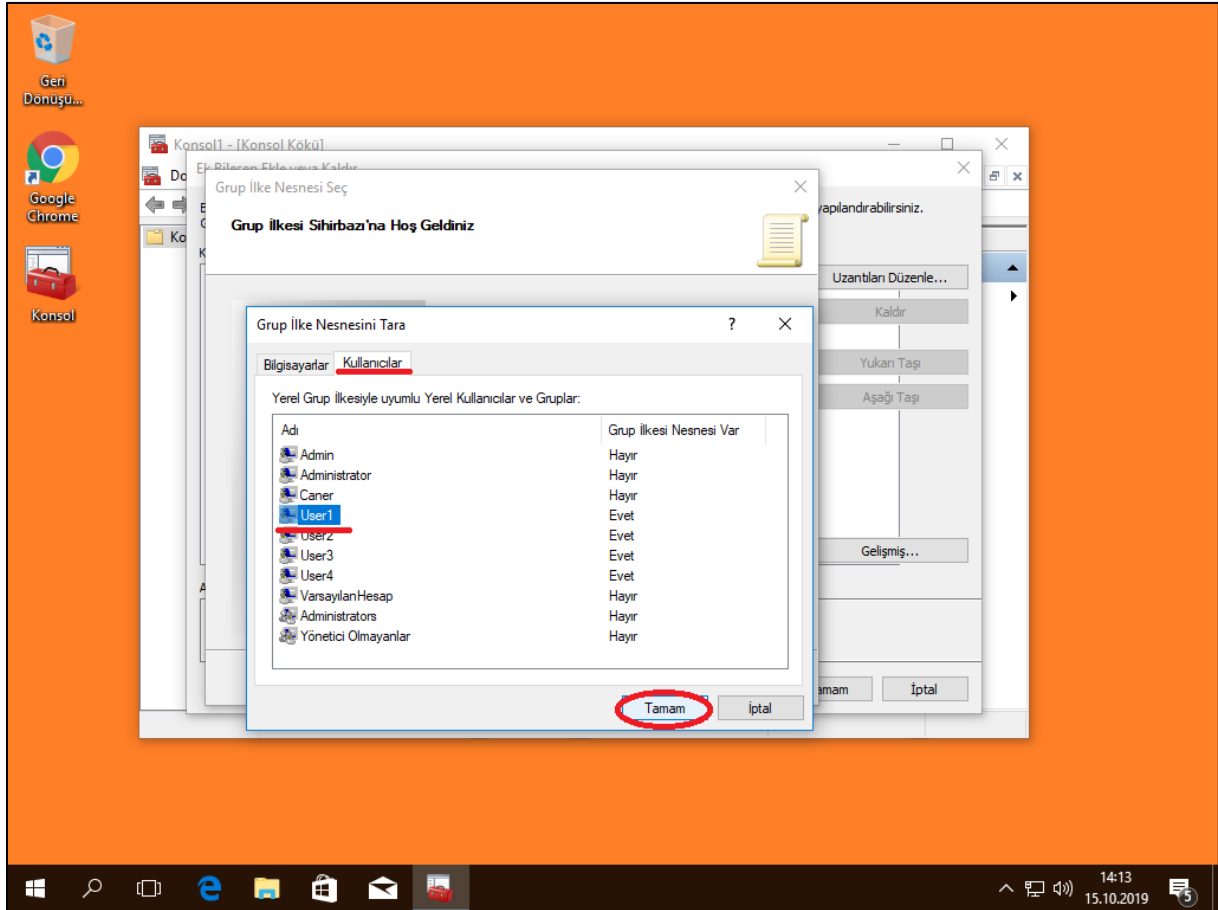
We select Group Policy Object Organizer from the usable components and we add it.



When we click on Add this screen pops up and we need to use Browse to get to user specific authorizations, otherwise the rules we'd implement would apply to the entire local PC.

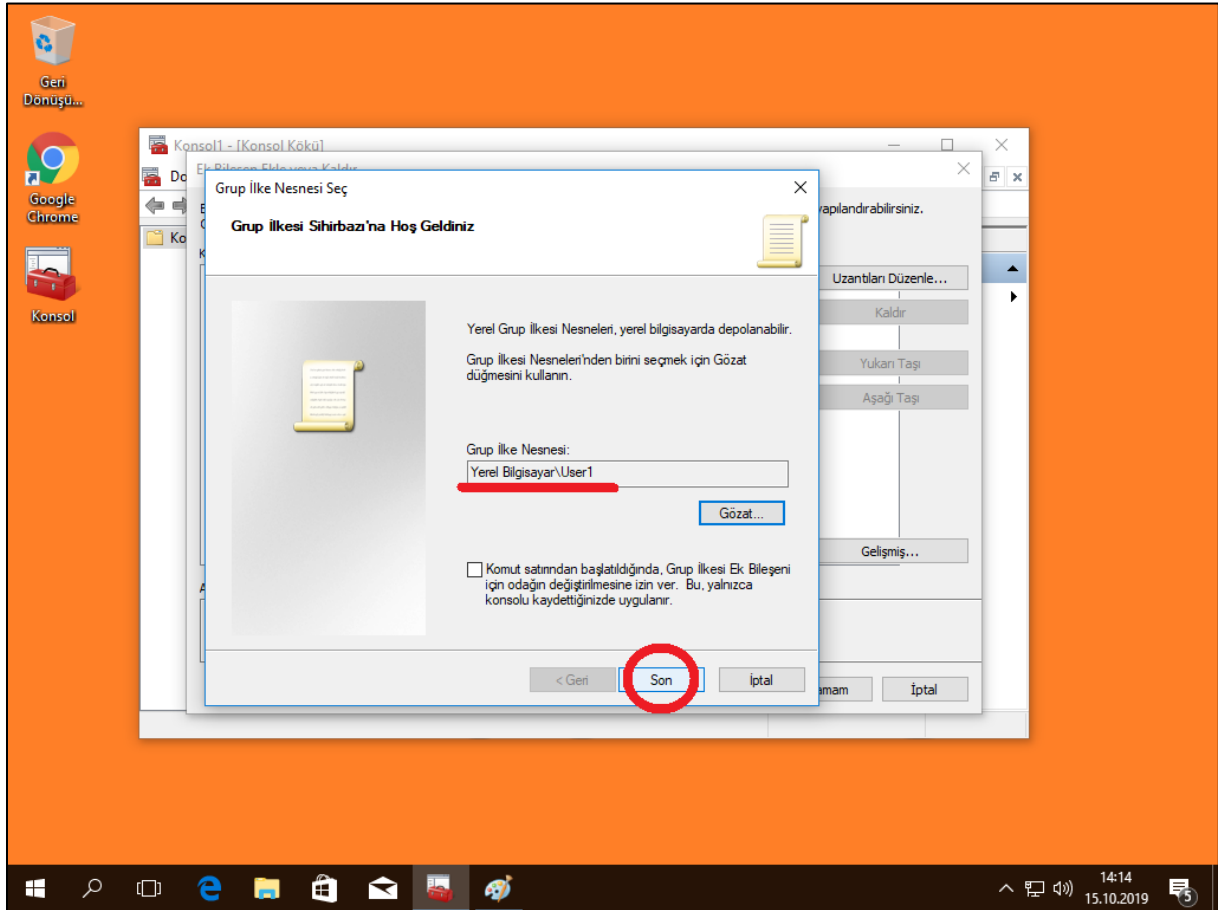


We select Users Tab and select which user we want specifically and then click Ok.

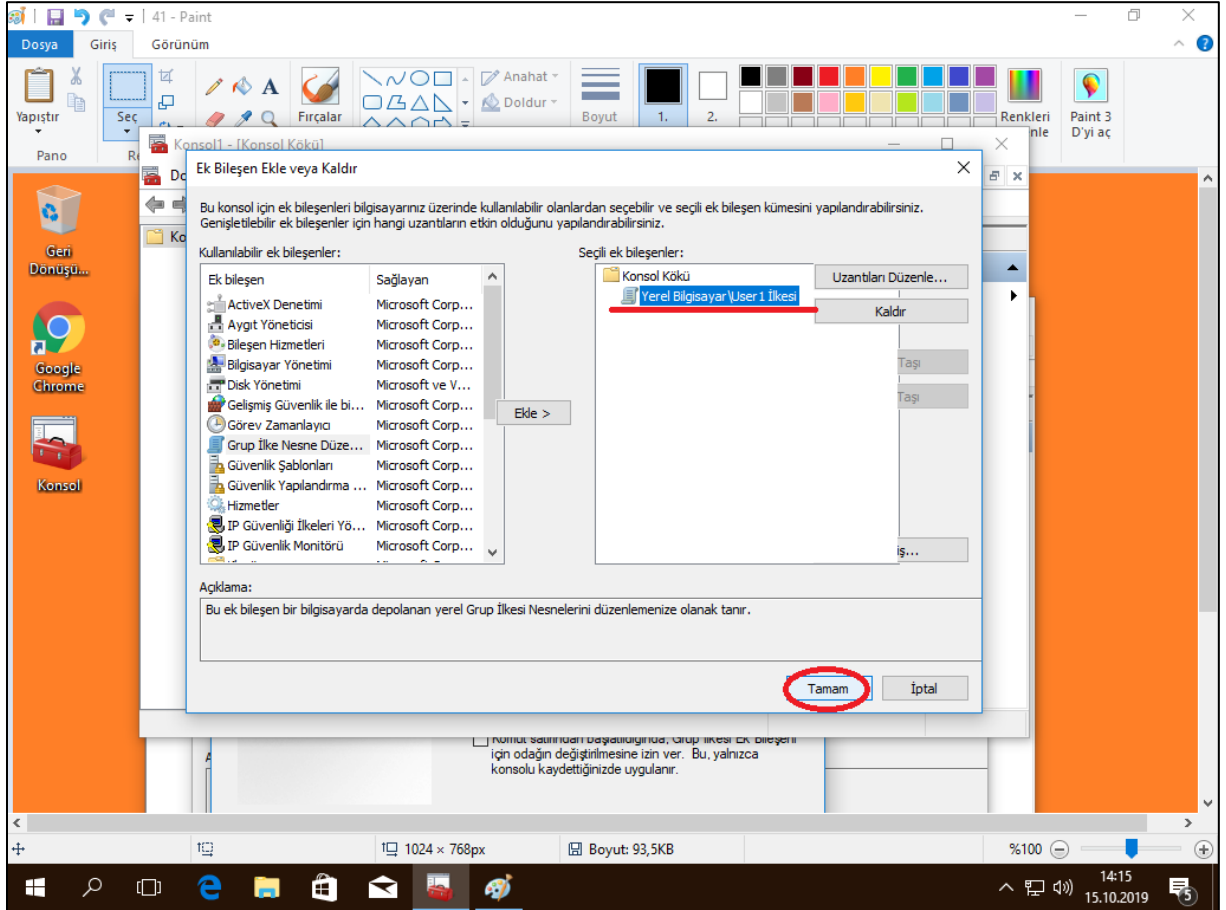


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We can observe that the name of the Group Policy Object has automatically changed aligned with our choice and we click End.

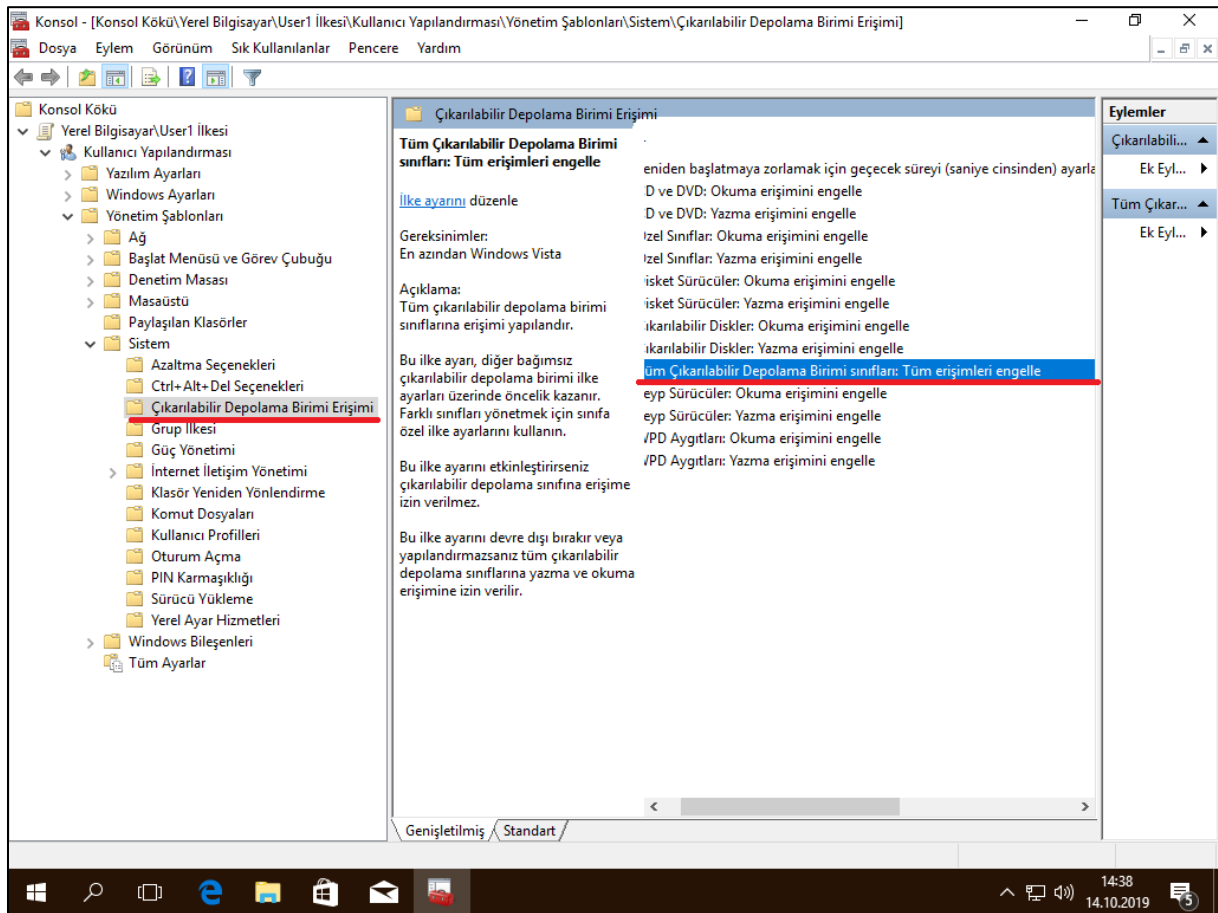


We can again observe the name change and the end the process. This process is the same for all users and from now on we will assume that you can create a Group Policy Object for another user with ease.

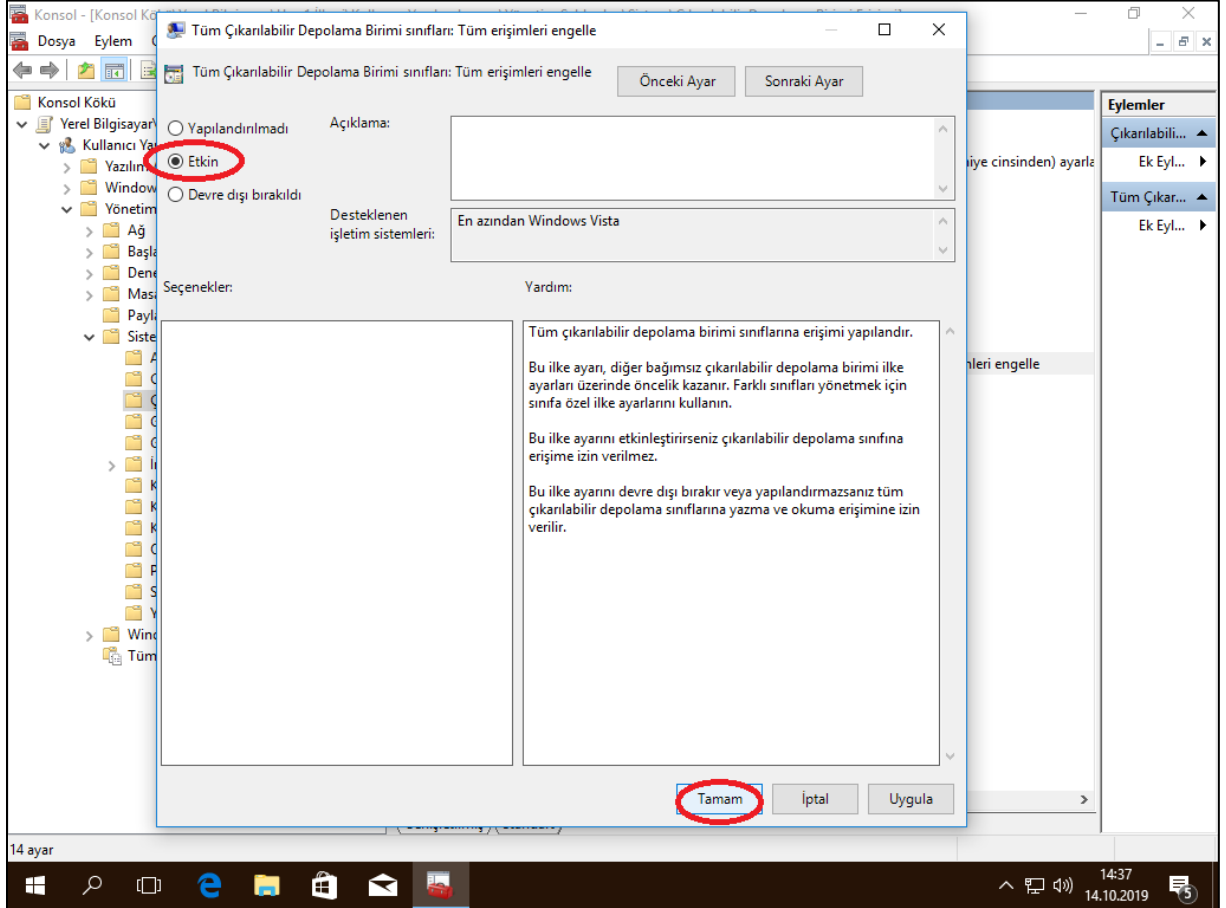


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Now to prohibit User 1's access to USB ports, we find where that is regulated under in the Group Policy Object. Under System there is Removable Storage Access then from there we can find all removable storage forms such as USB. We double click there.

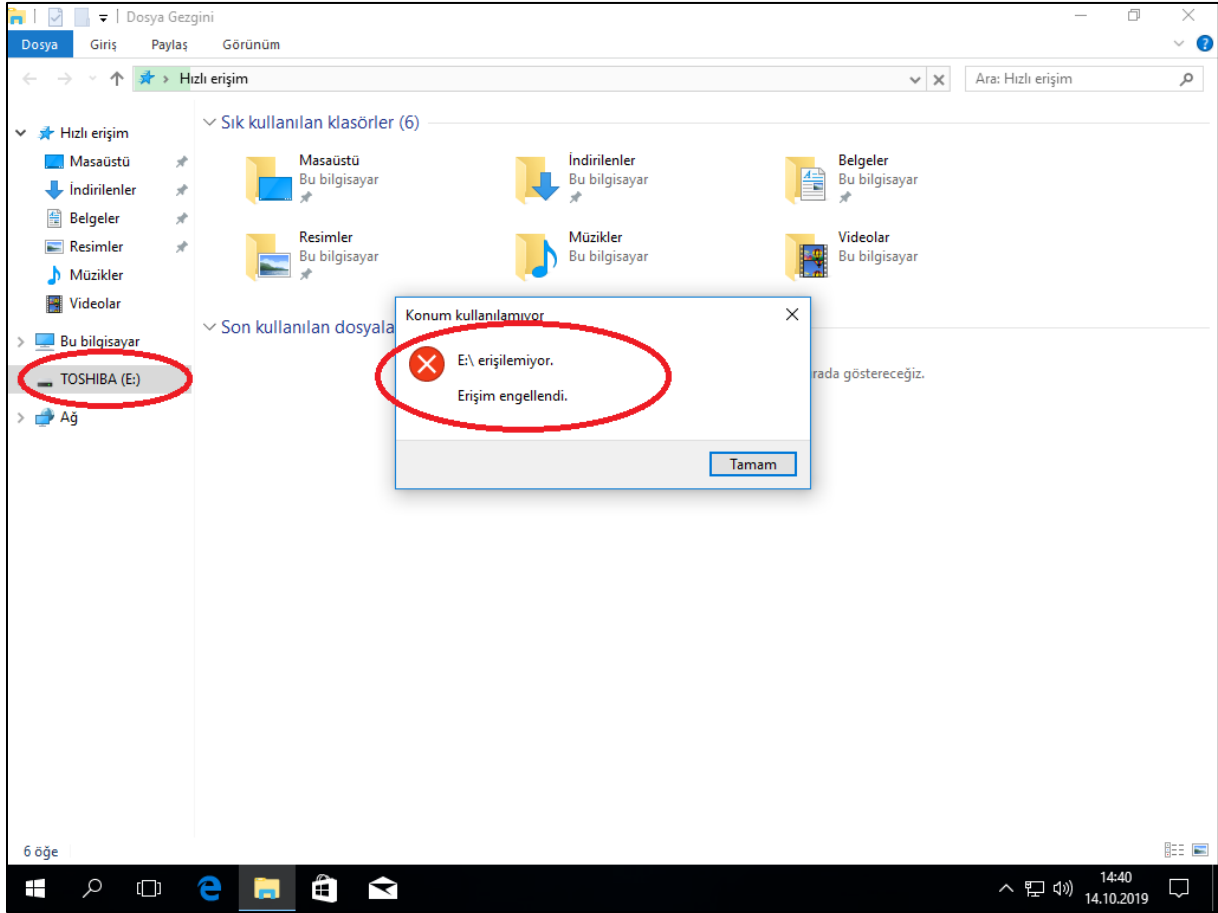


On the screen that pops up, we Enable the prohibition to all Removable Storage Access and click Ok.

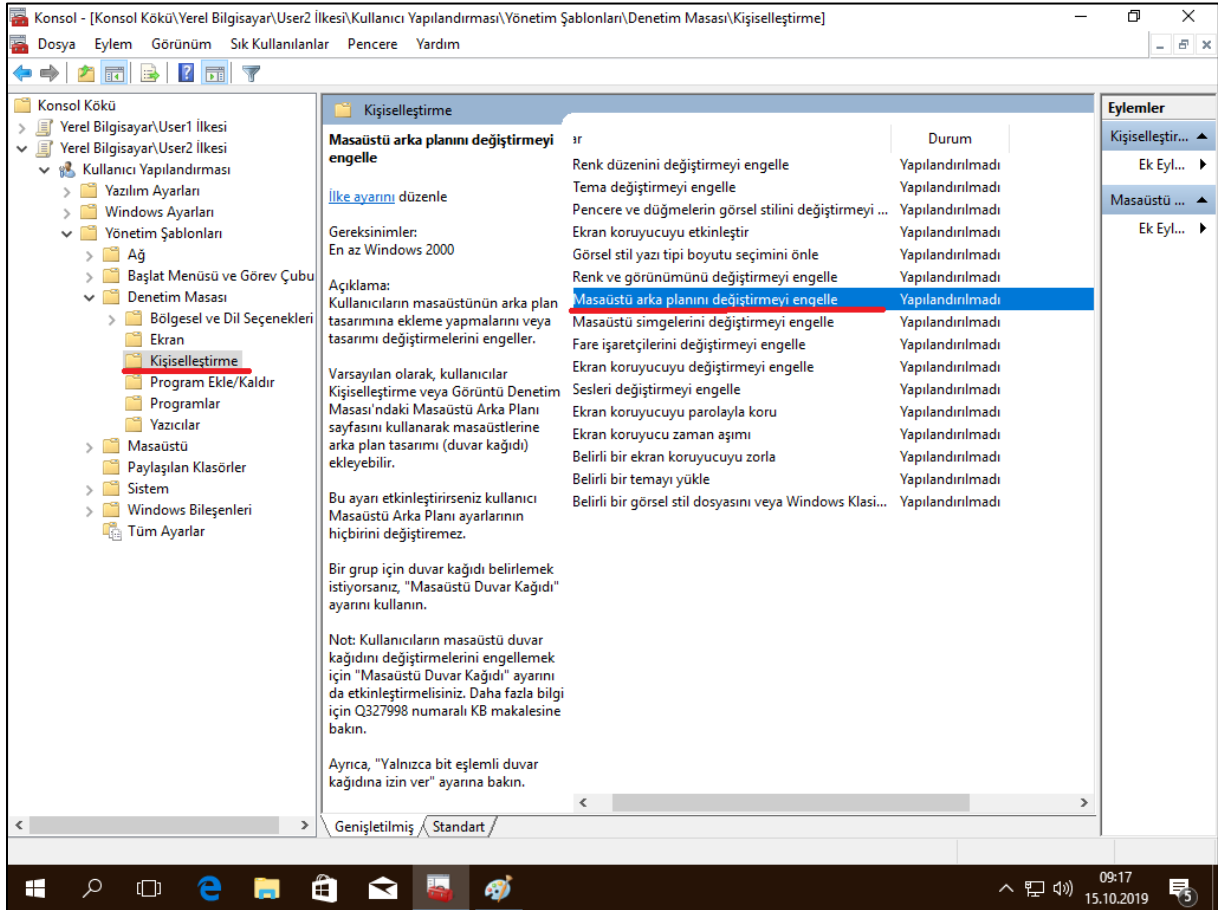


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As we can see User 1's access to USB drive is prohibited.

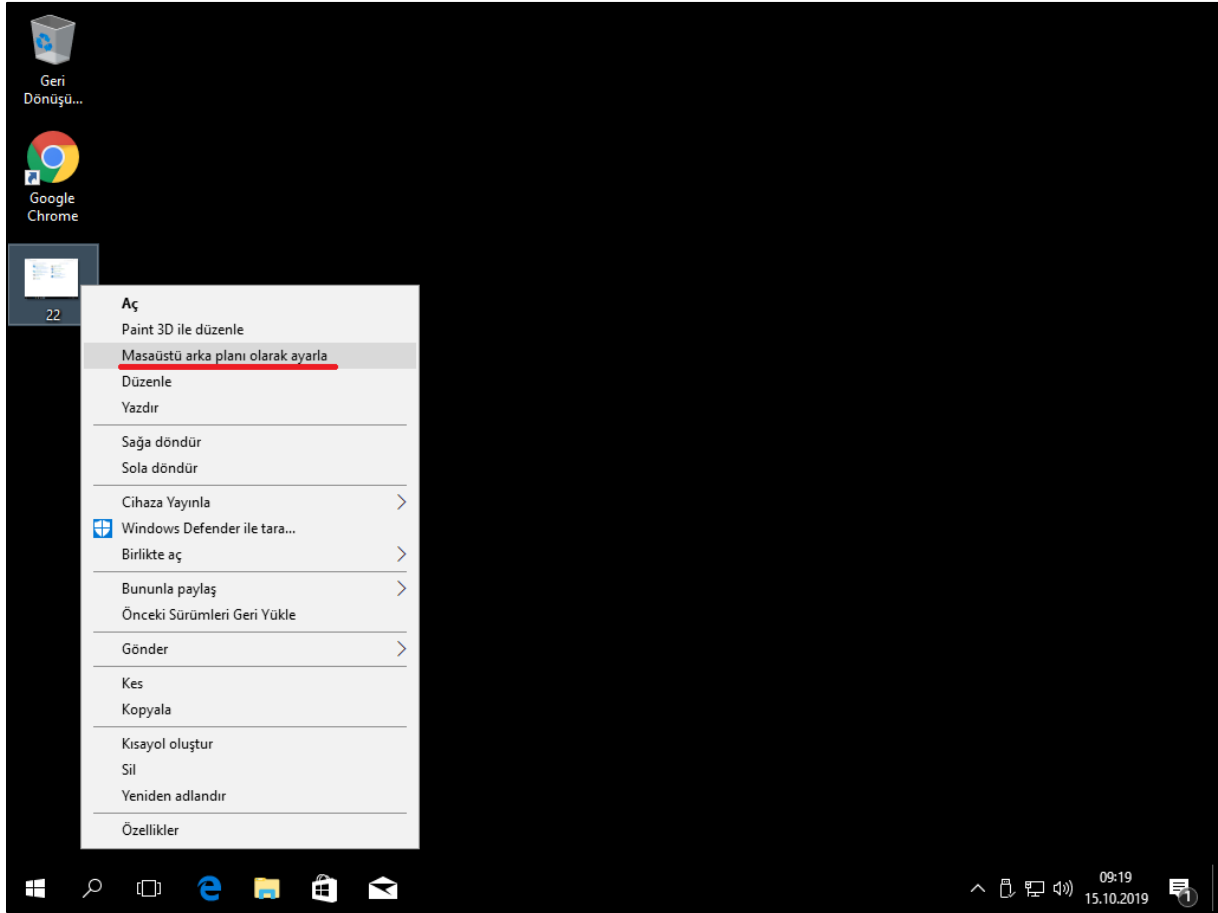


For User 2 we're prohibiting the ability to change Desktop background. The relative rule is found under Personalization which is under Control Panel.

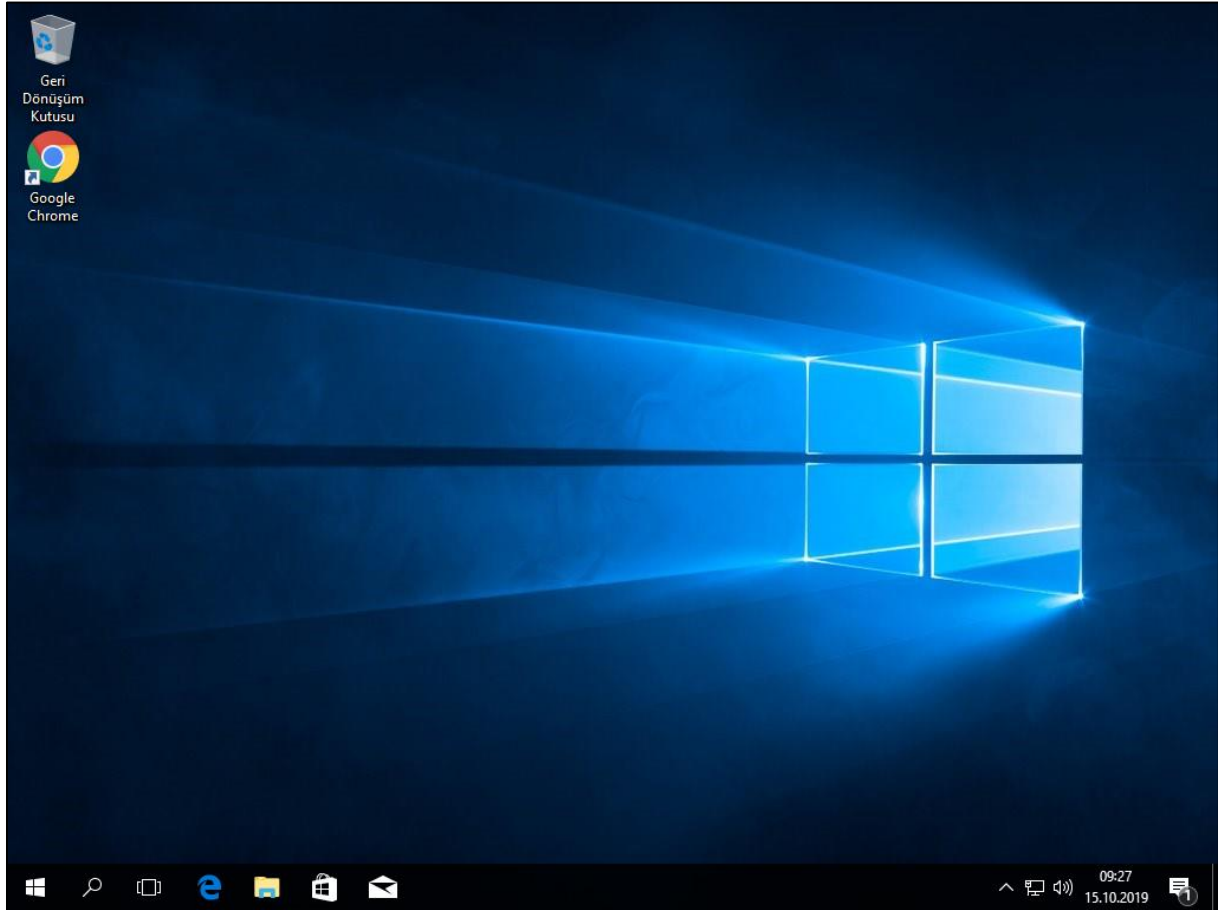


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When User 2 tries to change the desktop, it's futile.

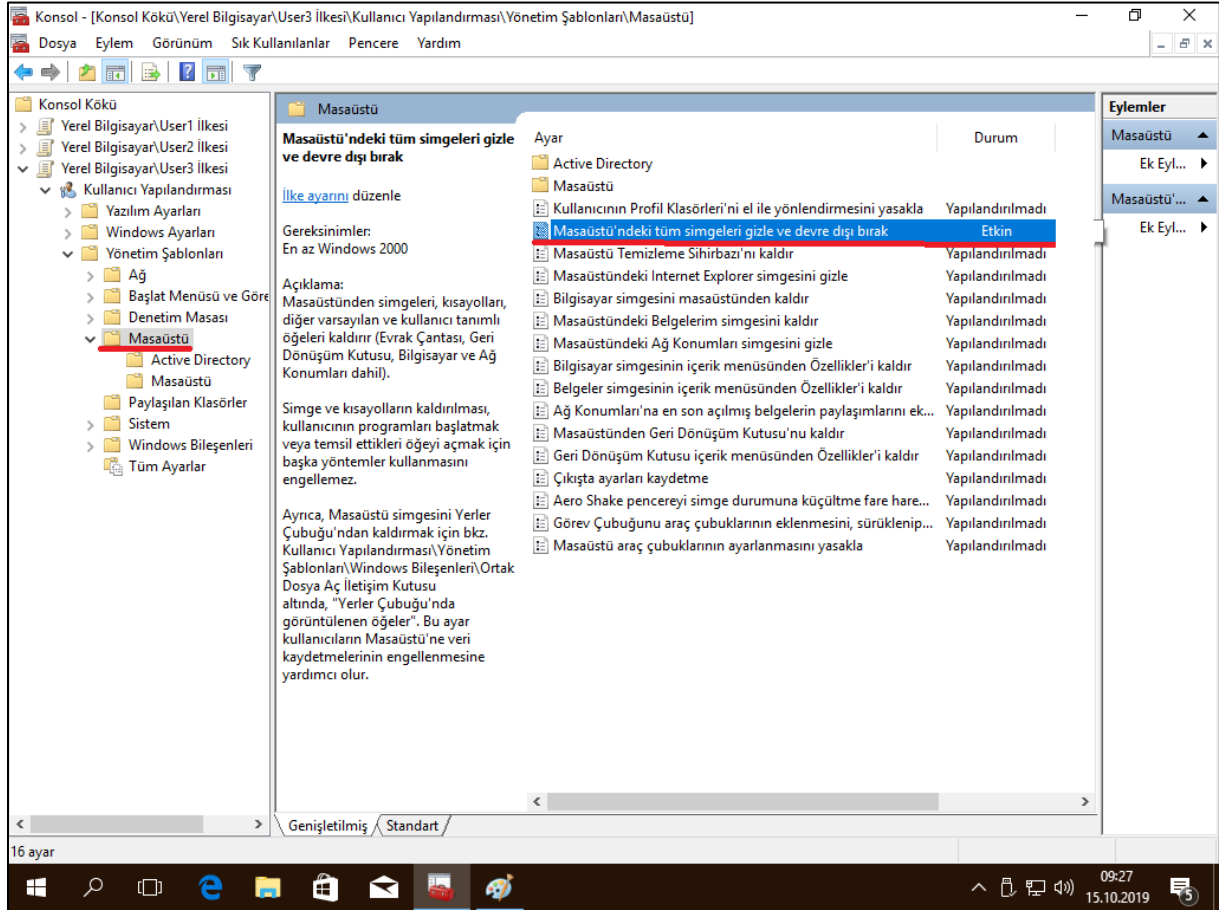


For User 3 we chose to hide and disable all the elements on the Desktop. Firstly, here is how the Desktop looks before we change the authorization.

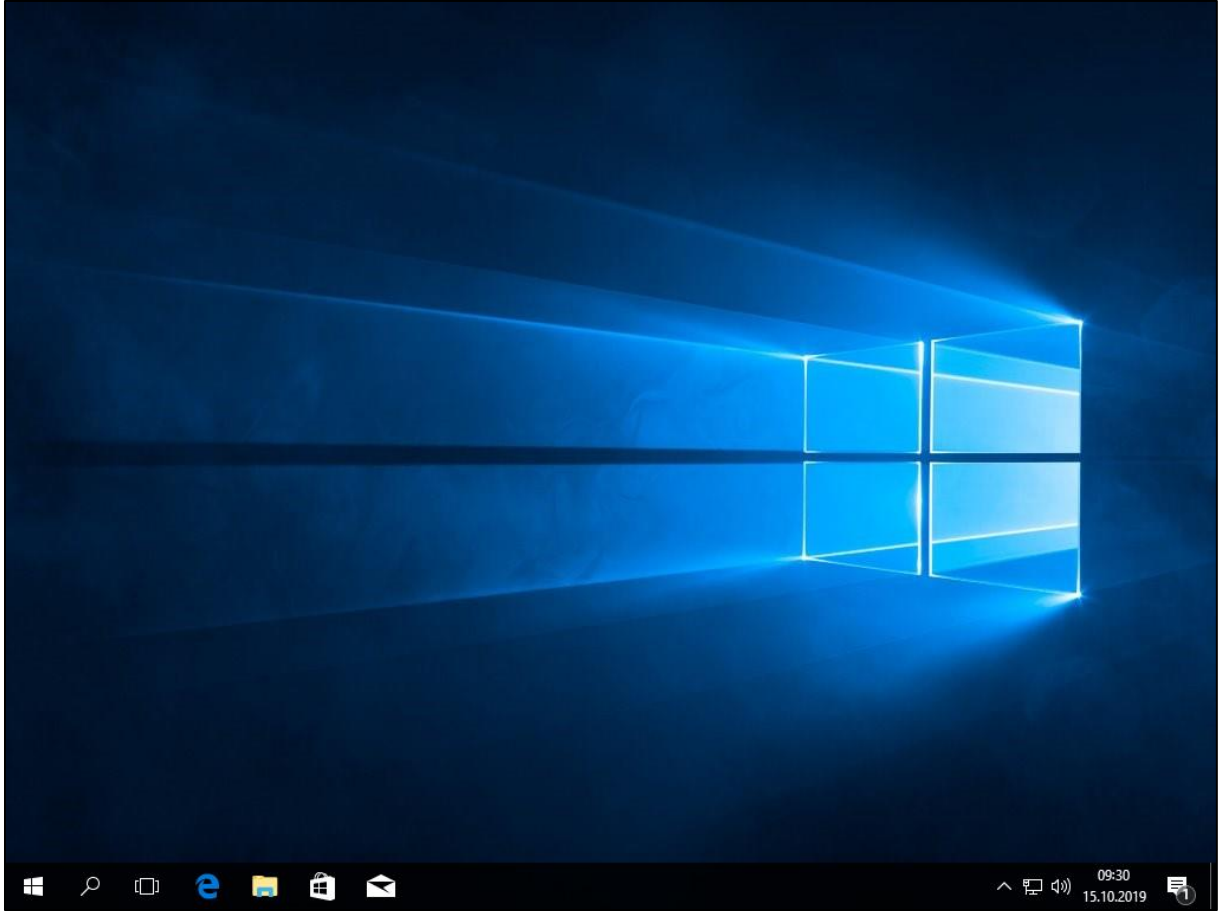


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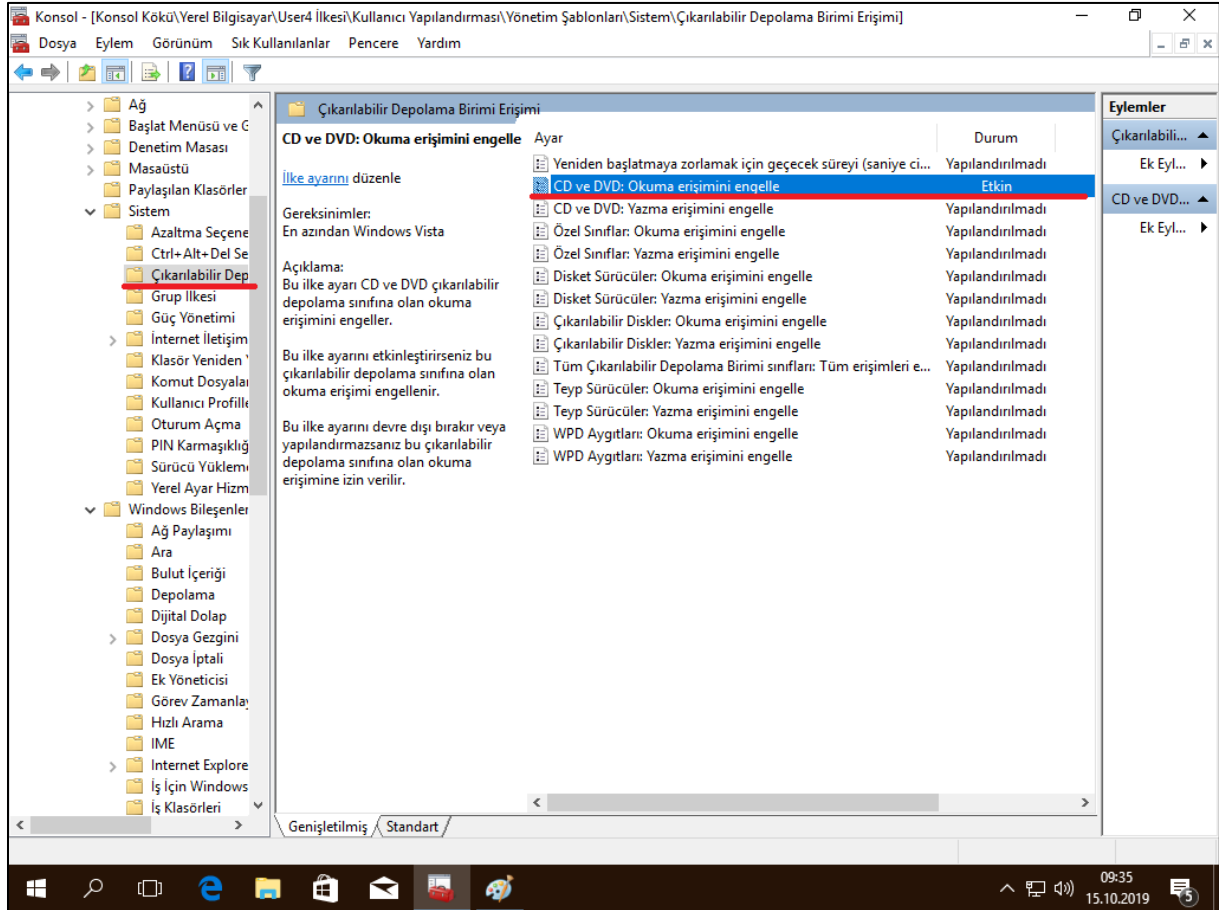
Then, we create a Group Policy Object for User 3 under Microsoft Management Console and enable the rule that will hide and disable everything on the Desktop.



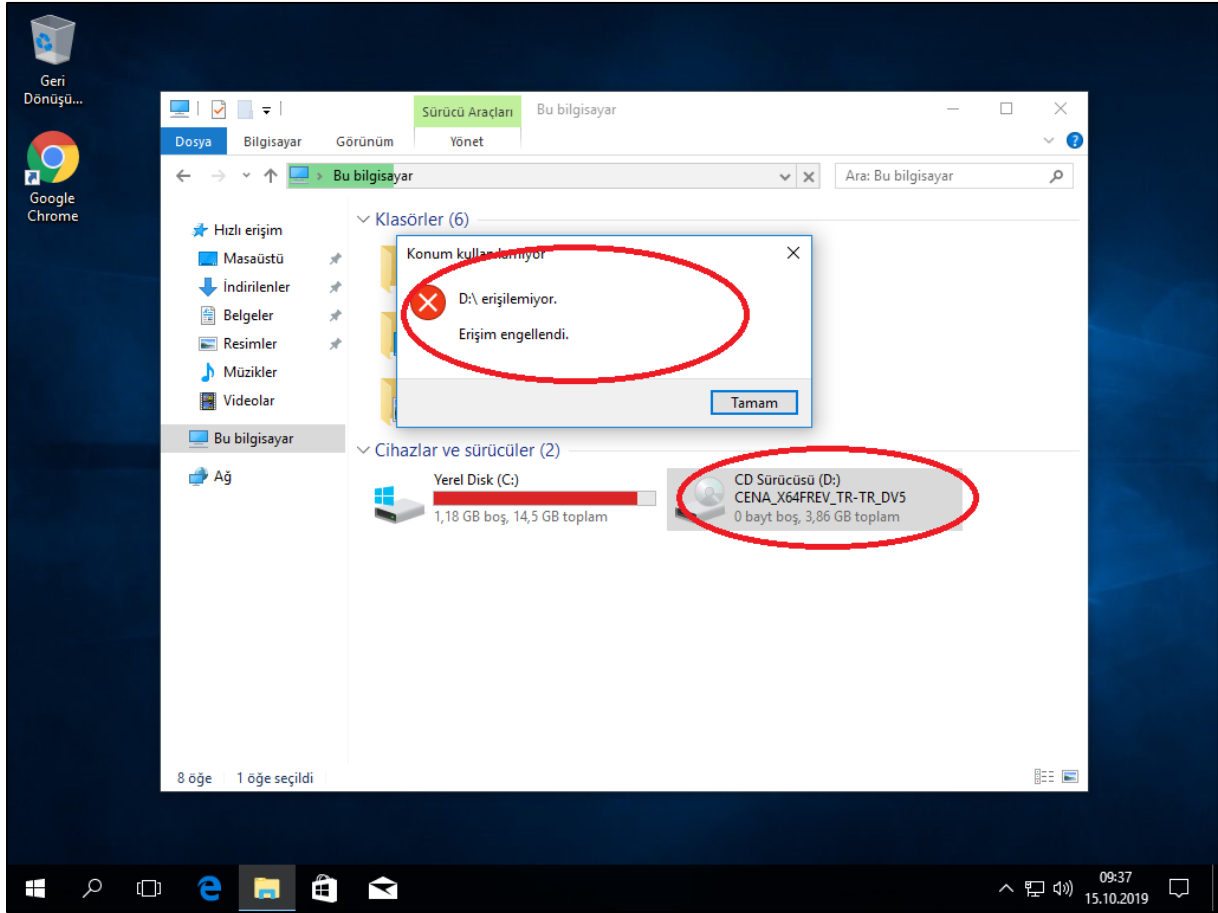
And finally, User 3's Desktop is useless.



For the last user, User 4 we will be prohibiting CD-ROM reading property.



Now, we can observe that User 4 cannot access the CD-ROM drive.



3. Conclusion

In this project, we familiarized ourselves with the User Authorization settings in Windows 10 under Microsoft Management Console. We managed to prohibit every feature we wanted to at the beginning of the project and they worked brilliantly. We could also specifically permit any features; however, most features are enabled by default. Hence, specific permitting would require a prohibition to all users beforehand. Nevertheless, within the scope of this project, we have been successful in accomplishing our goals.

4. Evaluation

Due to time constraints I didn't have a chance to really dig around unique ways to prohibit the users. Producing an evidence of the prohibition or permit implementation has also been a constraint. I believe the User 2 and User 3's limit to access the Desktop features' proof look a bit weaker than the USB and CD-ROM access limit; however, I think they should still suffice. Given another try at this report I would probably look for other features to limit access to. Even though this project was solely on user authorization we could also change the authorization setting for the entire local PC. I didn't have a chance to test whether disabling a feature for the PC but enabling it for a specific user would have the intended effect of specific access for the user.