NAME: KSHITIJ GUPTA
Enrolment Number: 21162101007
Sub: CS

Practical – 1[Batch-71]

Your organization, XYZ Corp, is migrating its e-commerce platform to the IBM Cloud. As a part of this migration, the company needs to ensure that the new cloud environment complies with industry regulations such as PCI-DSS for handling payment information and GDPR for protecting customer data. The goal is to implement IBM Cloud Security and Compliance Center to continuously monitor and maintain the security and compliance posture of the e-commerce platform.

Go through the requirements and perform the following tasks:

1: Provision the Security and Compliance Center:

- Log in to XYZ Corp's IBM Cloud account.
- Navigate to the Security and Compliance Center and provision the
- service.

2: Configure the Service:

- Connect the e-commerce platform's cloud resources to the Security and Compliance Center.
- Enable data collection for security and compliance metrics.

3: Define and Apply Policies:

- Identify PCI-DSS and GDPR compliance requirements.
- Create and apply security and compliance policies within the Security and Compliance Center.

4: Run Initial Security Scans:

- Initiate security scans on the e-commerce platform.
- Analyze results to identify and prioritize issues.

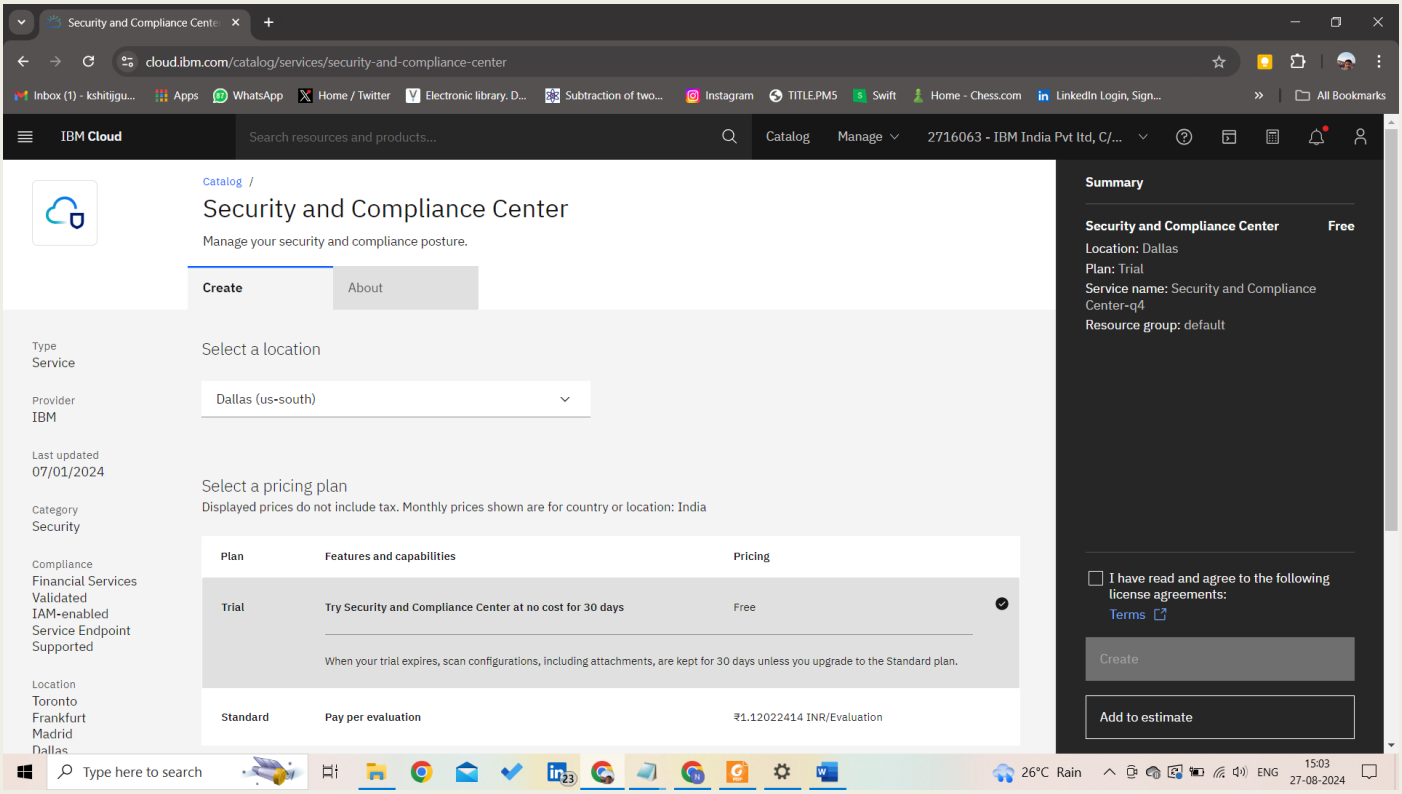
5: Remediate Identified Issues:

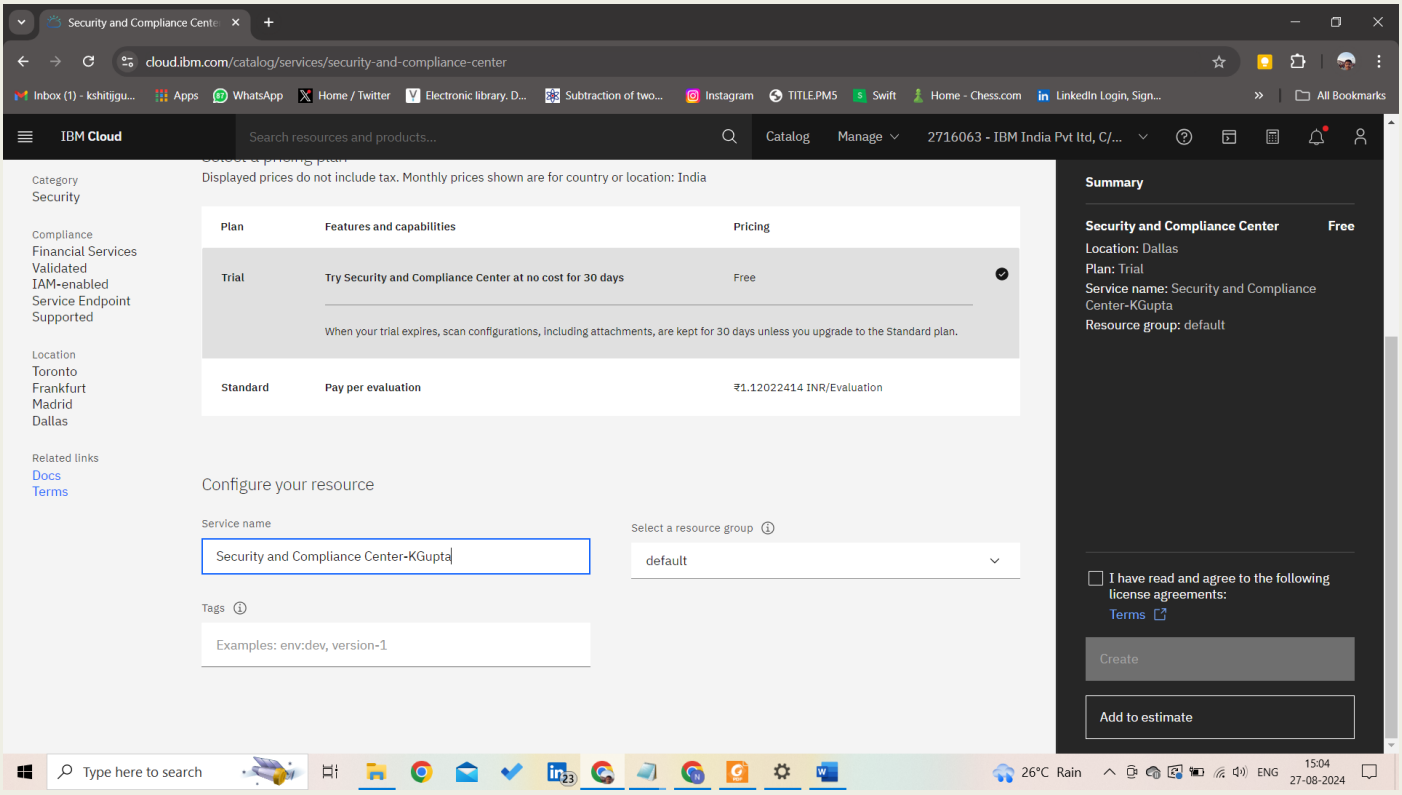
- Develop and implement remediation plans.
- Validate changes to ensure issues are resolved effectively.

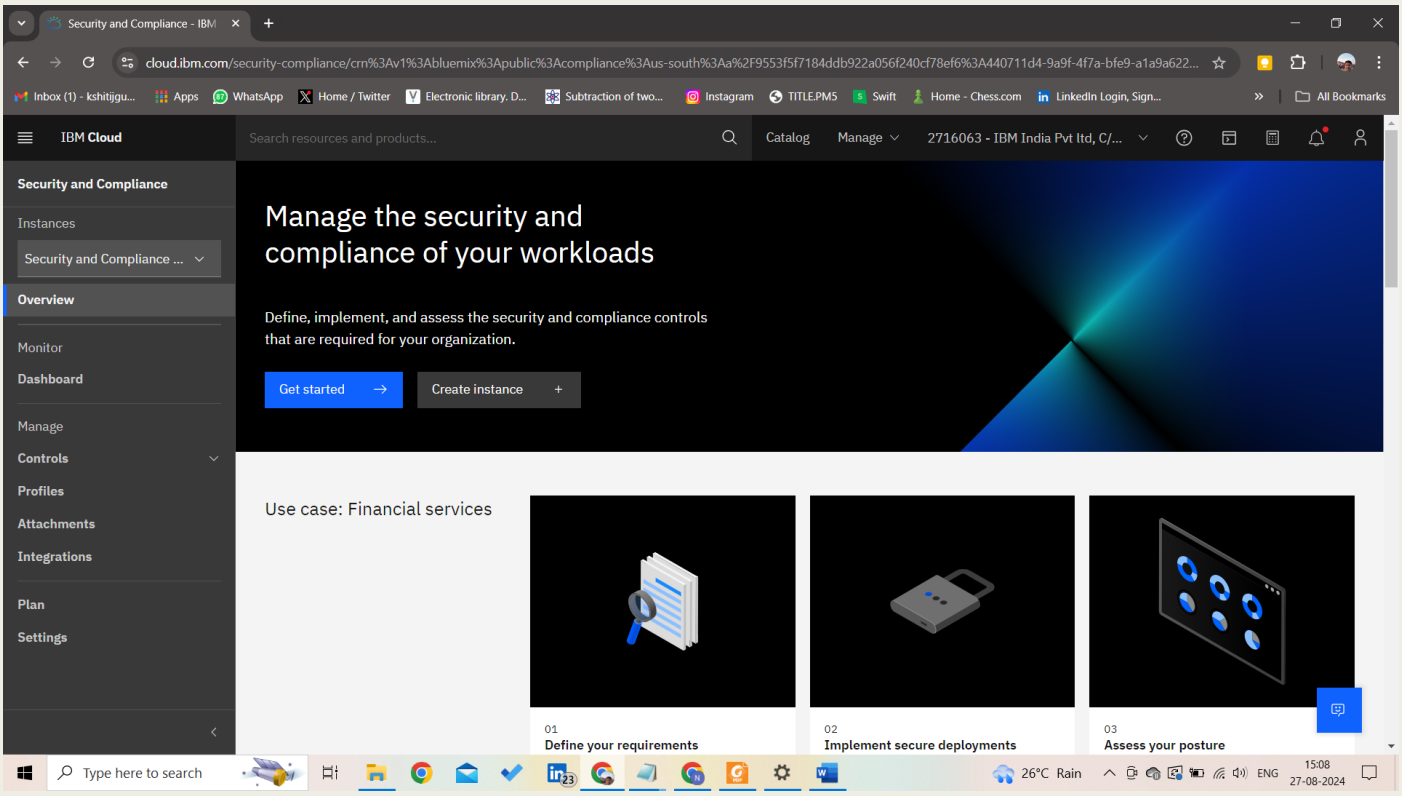
6: Enable Continuous Monitoring, Review and Improve:

- Set up continuous monitoring and configure alerts.
- Generate and review compliance reports regularly.
- Conduct regular reviews and update policies and procedures.

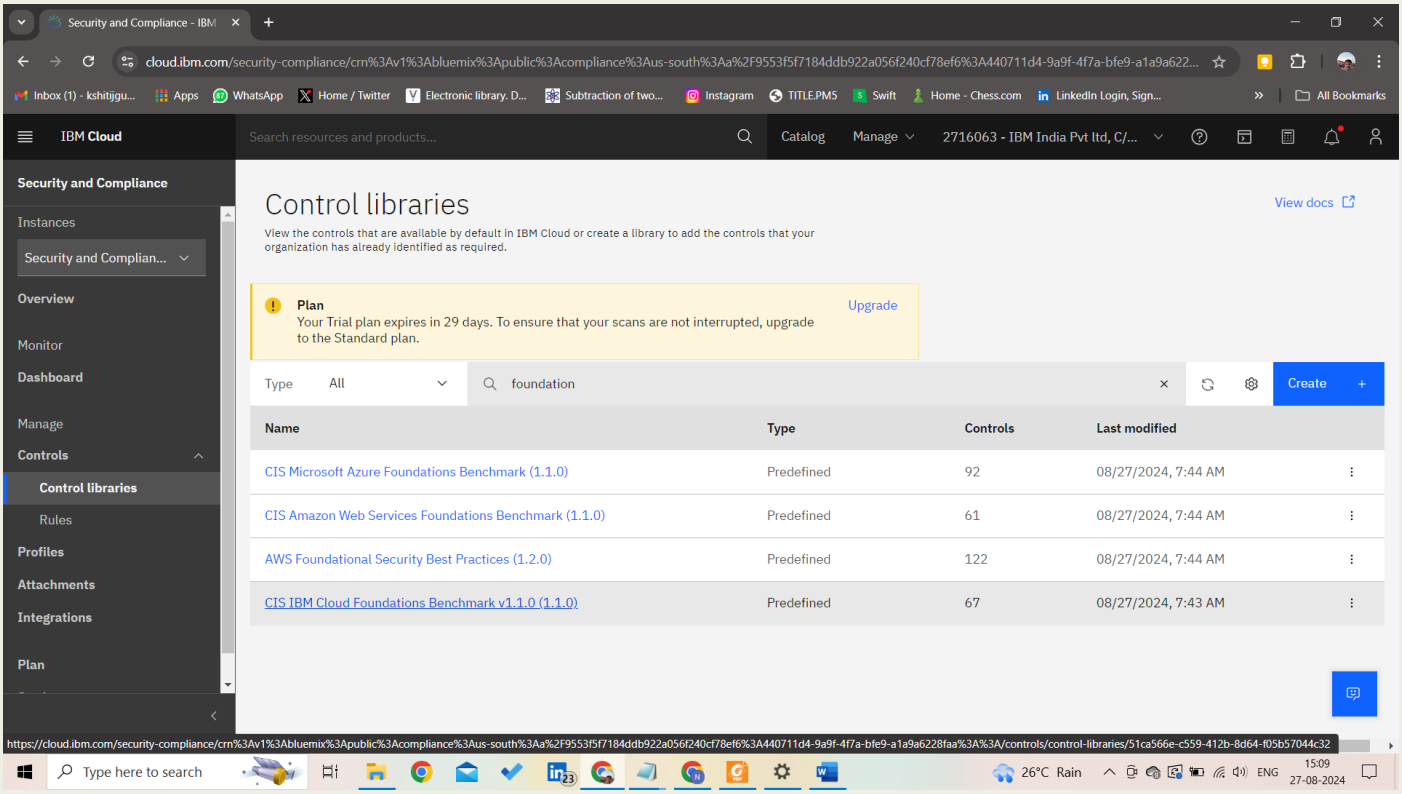
Search for Security and Compliance Center (Service) and select location and create service.



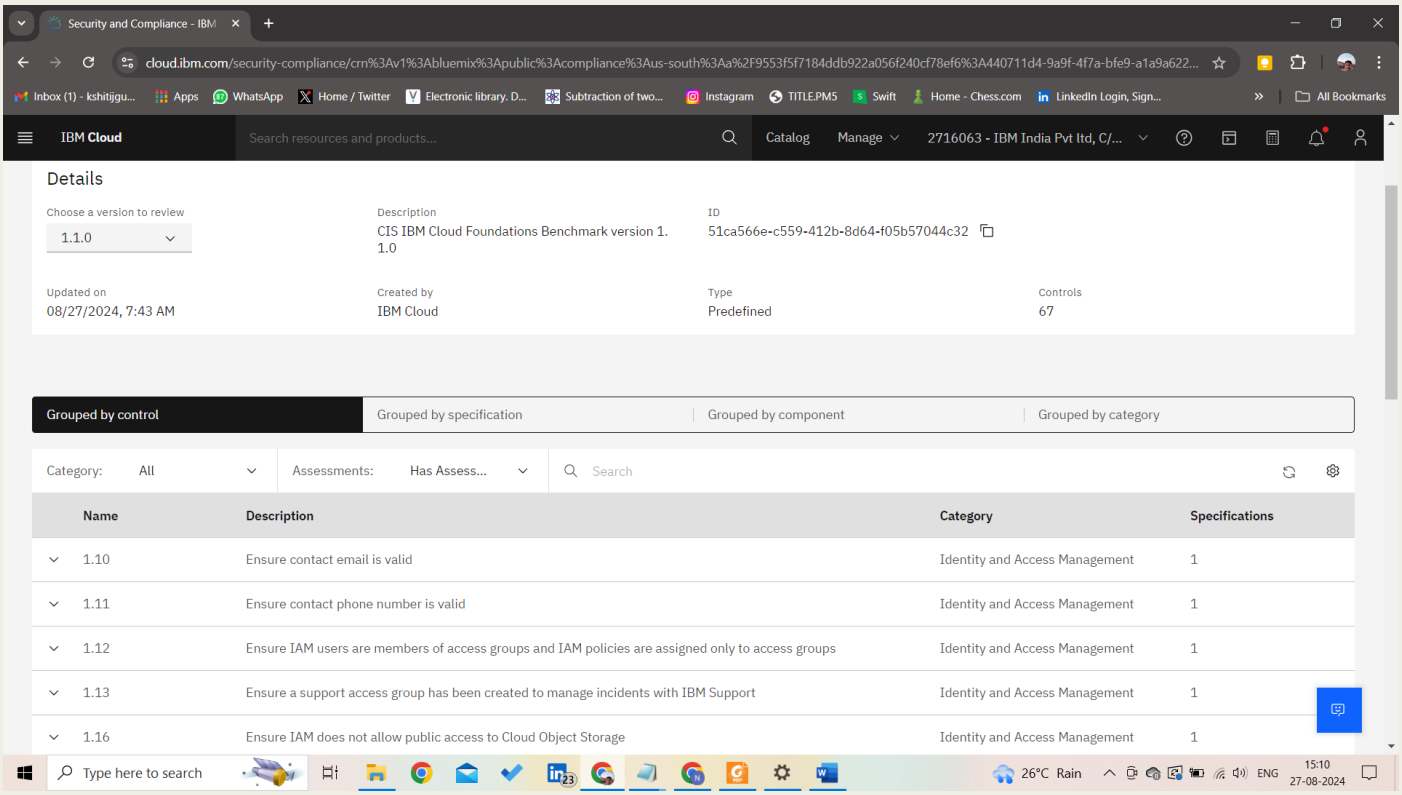




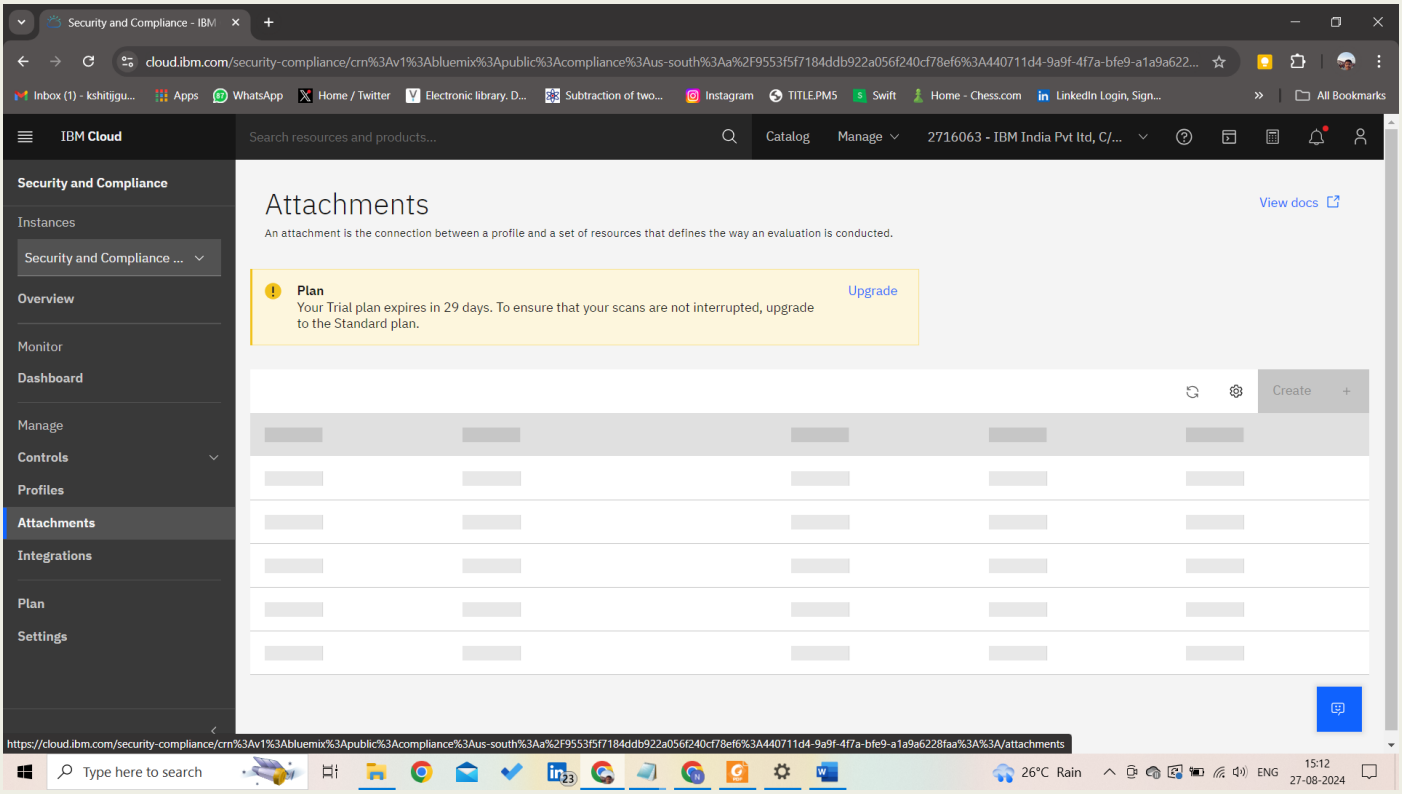
Go to Controls then Control Libraries and select for the following library.



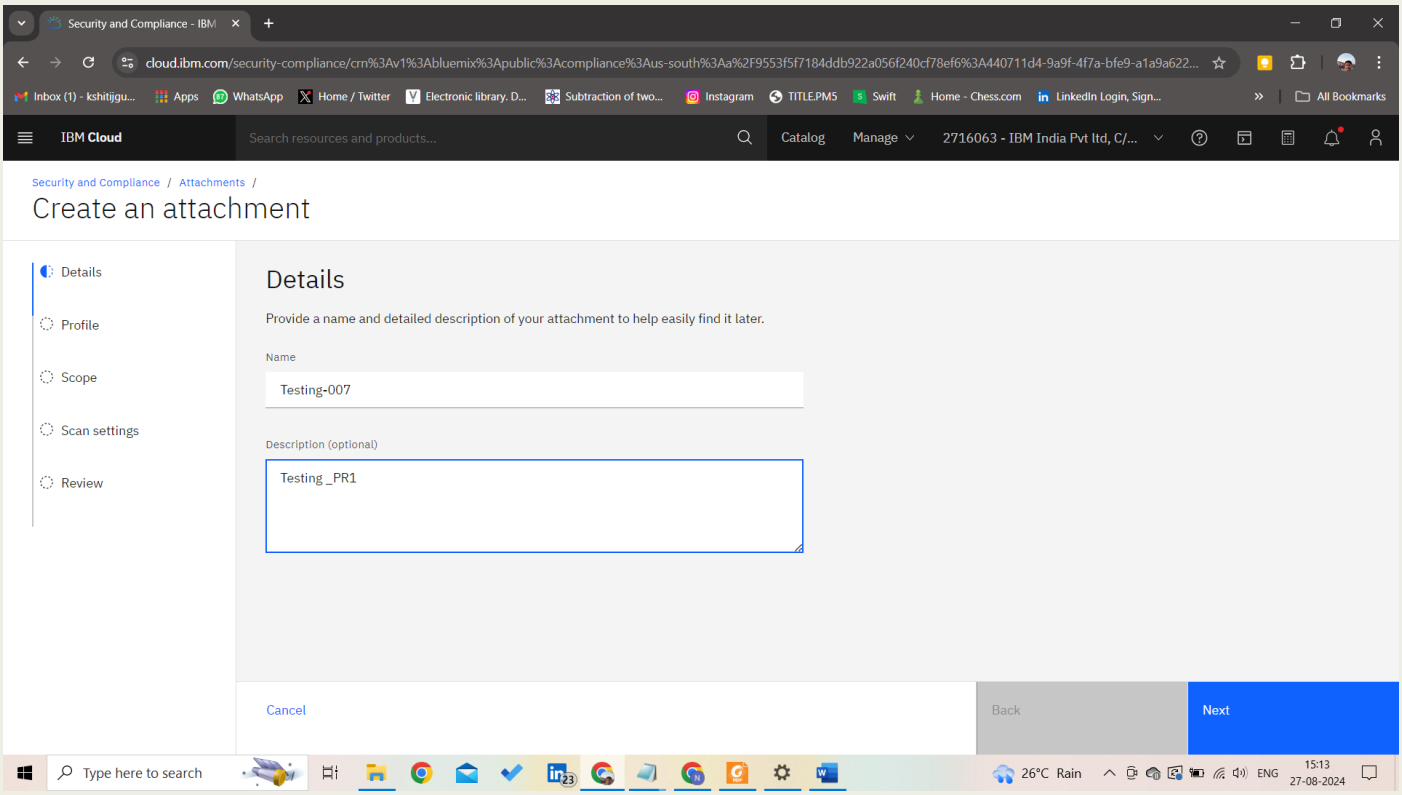
Here we can see all the controls available.

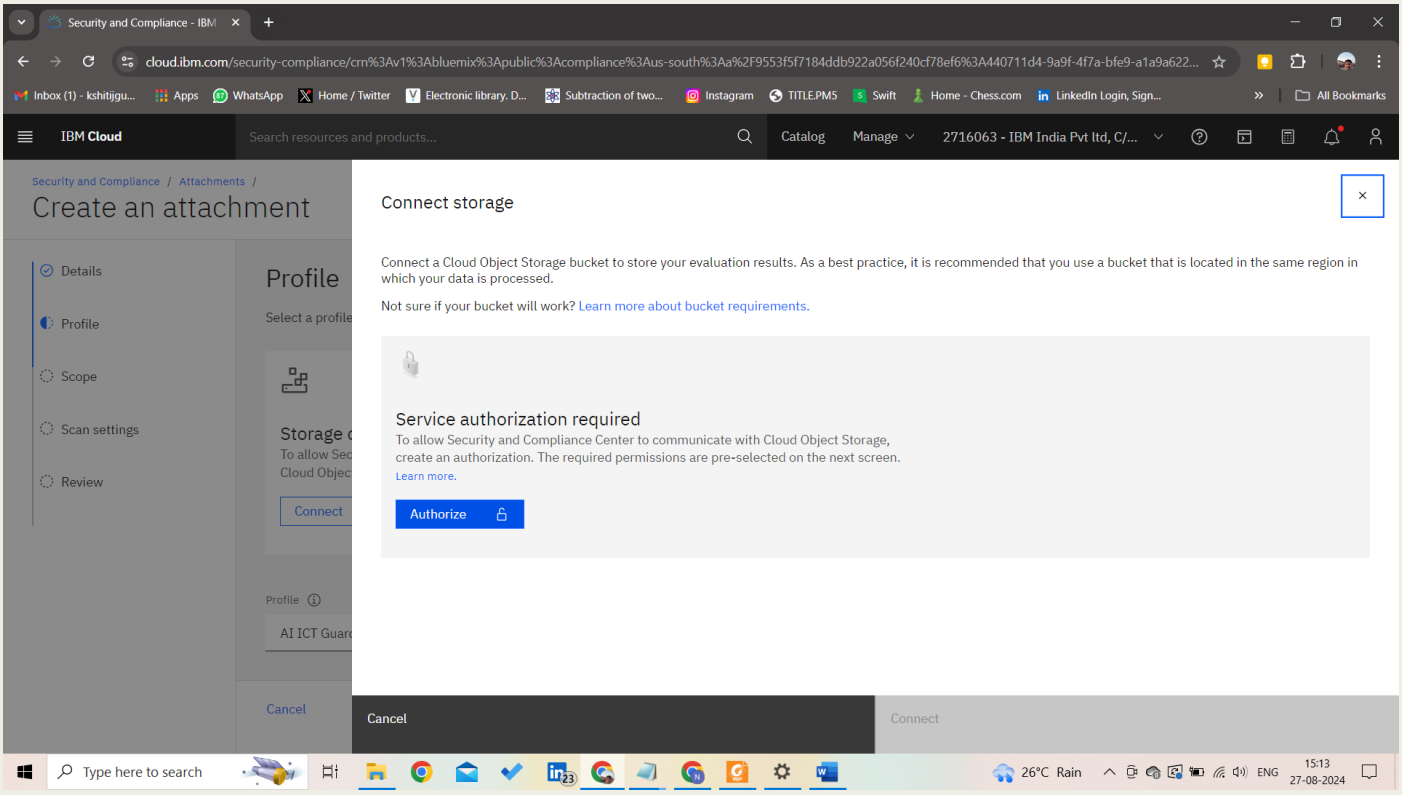


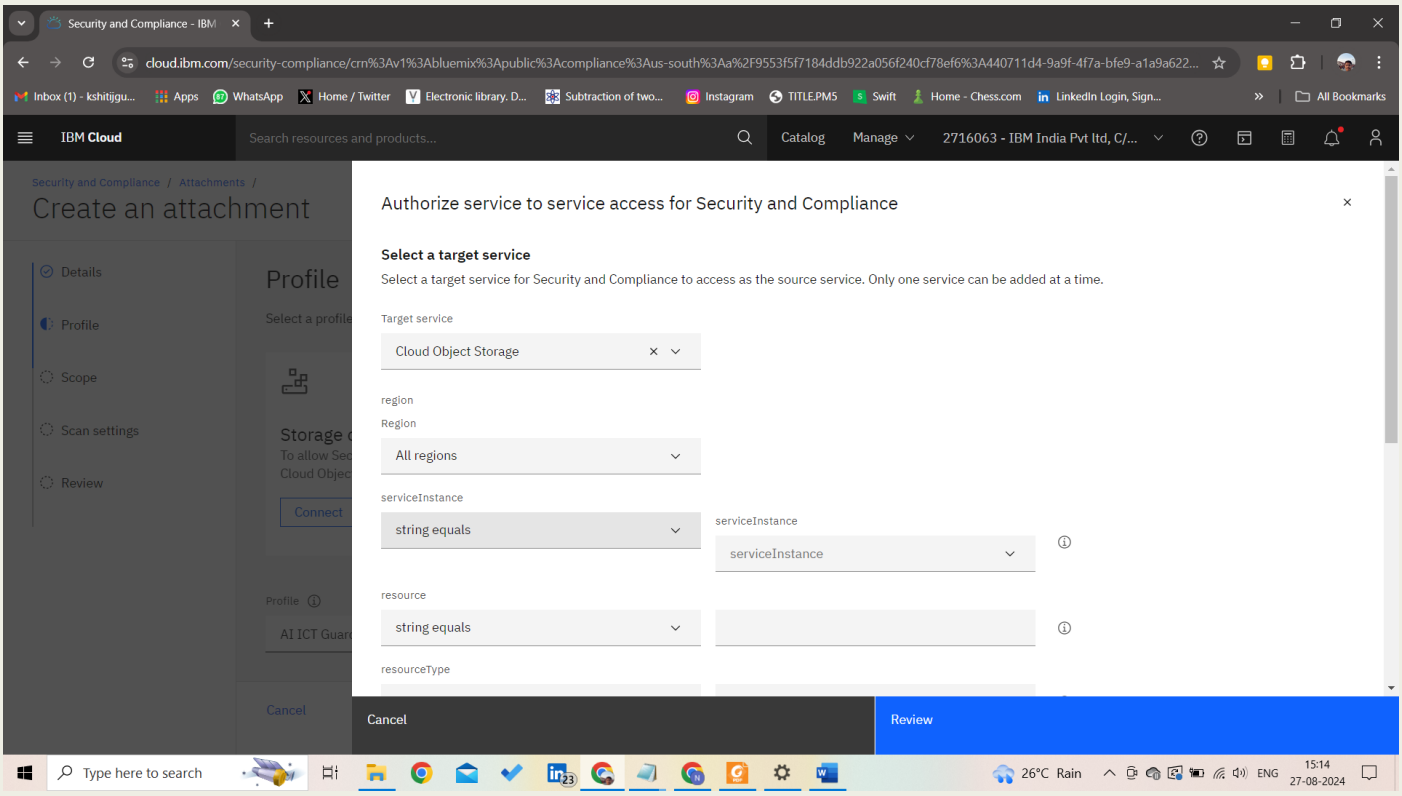
Now go to Attachments.

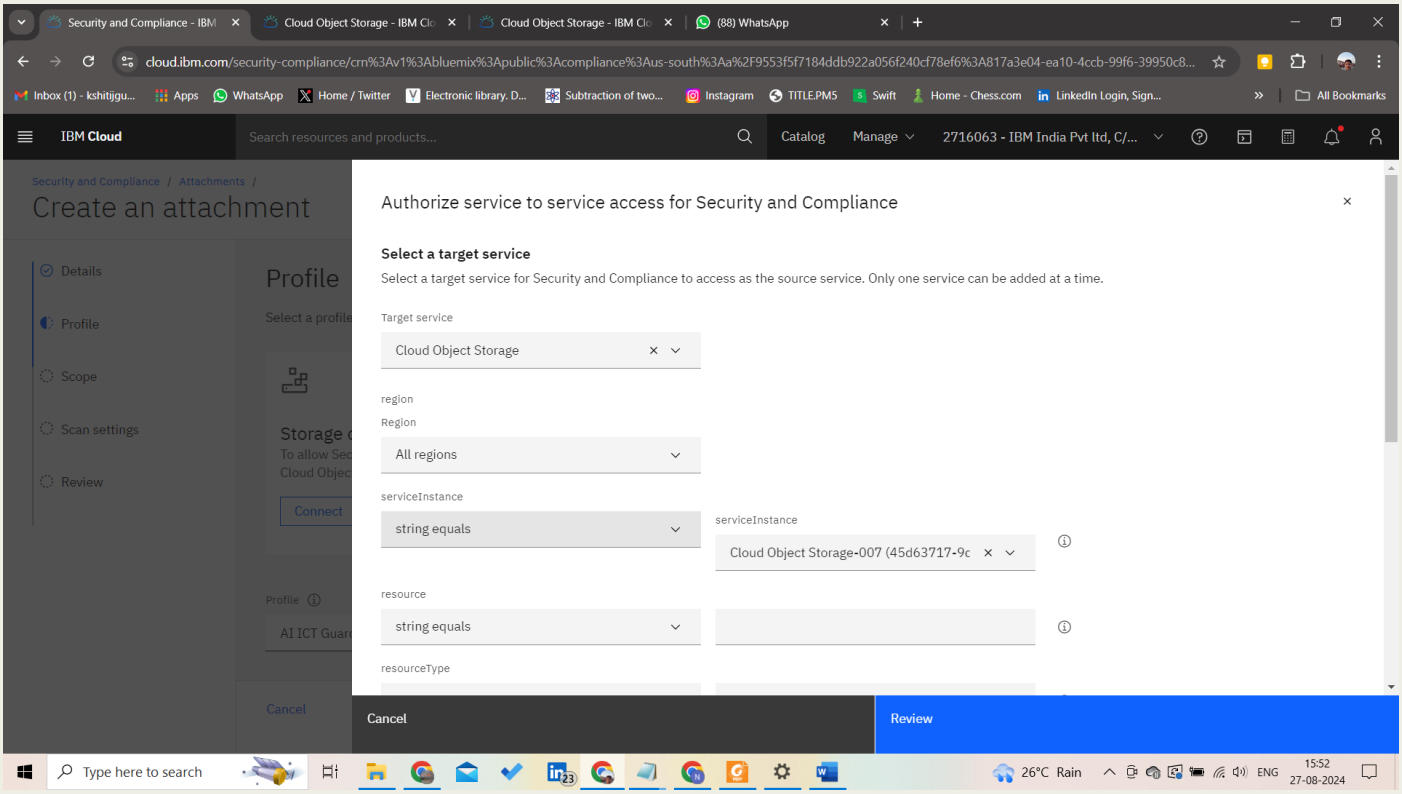


Now we will create an attachment and enter all the details.

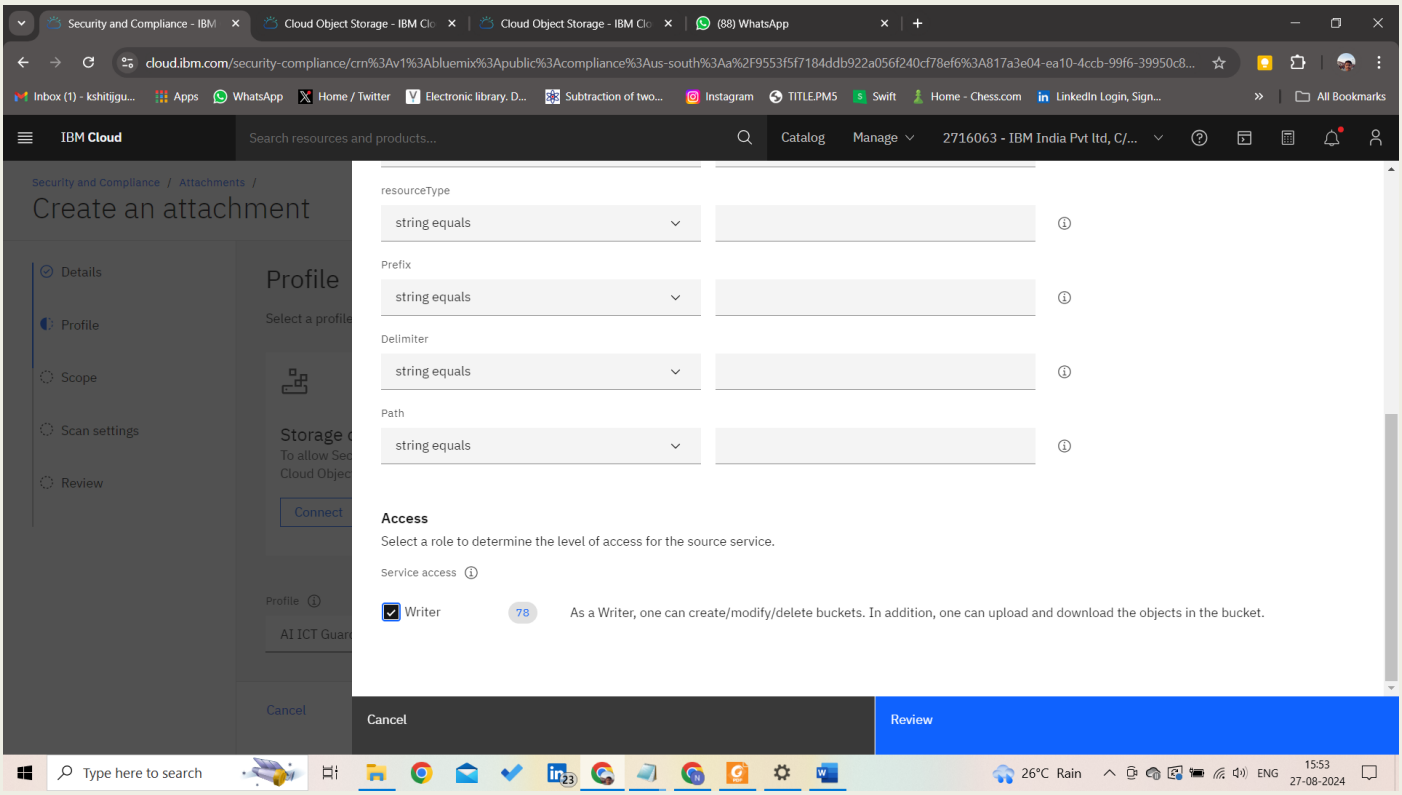


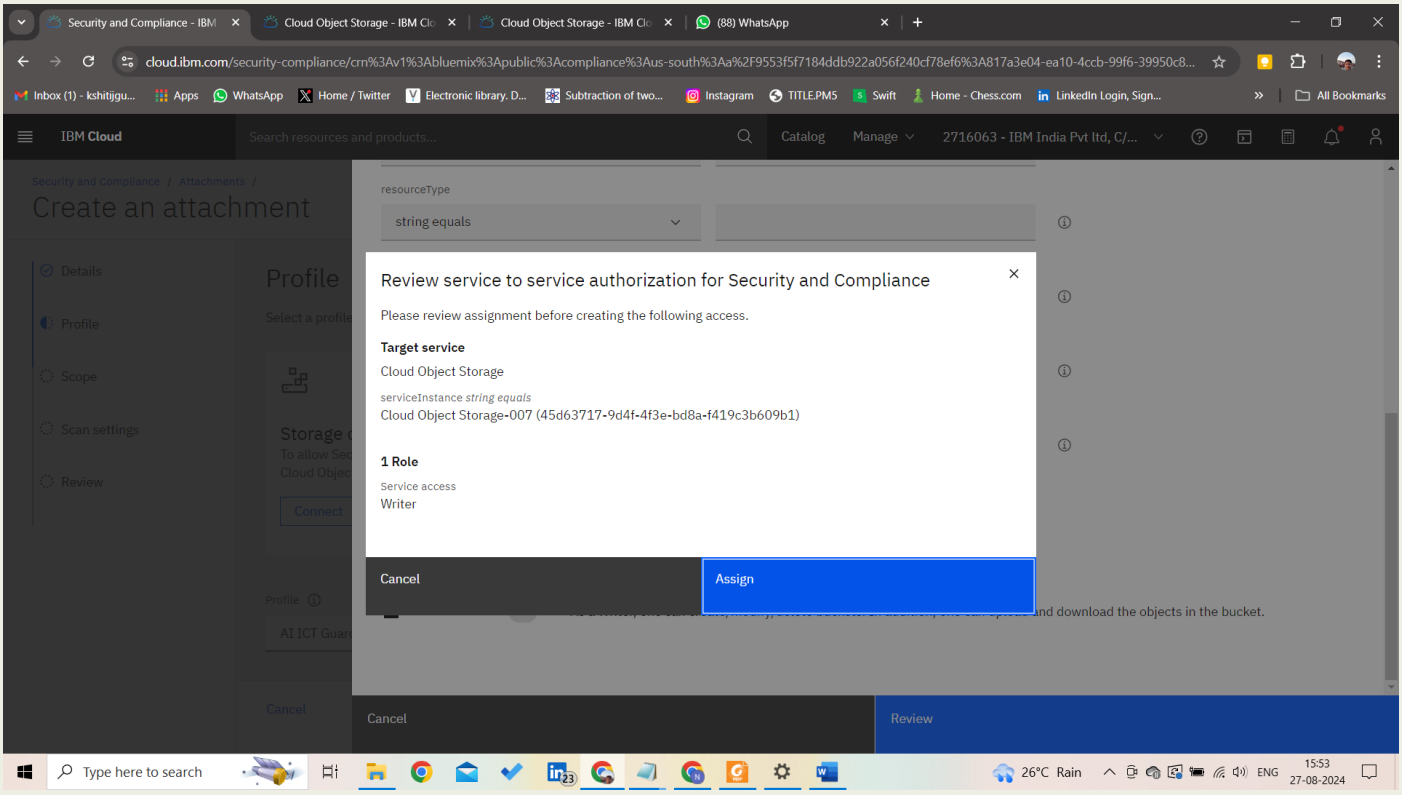

Security and Compliance - IBM
cloud.ibm.com/security-compliance/crn%3Av1%3Abluemix%3Apublic%3Acompliance%3Aus-south%3Aa%2F9553f5f7184ddb922a056f240cf78ef6%3A440711d4-9a9f-4f7a-bfe9-a1a9a622...
IBM Cloud
Search resources and products...
Catalog
Manage
2716063 - IBM India Pvt ltd, C/...
Security and Compliance / Attachments /
Create an attachment
Details
Profile
Scope
Scan settings
Review
Connect storage
Connect a Cloud Object Storage bucket to store your evaluation results. As a best practice, it is recommended that you use a bucket that is located in the same region in which your data is processed.
Not sure if your bucket will work? Learn more about bucket requirements.
Service authorization required
To allow Security and Compliance Center to communicate with Cloud Object Storage, create an authorization. The required permissions are pre-selected on the next screen.
Learn more.
Authorize
Cancel
Connect
Type here to search
26°C Rain
ENG
15:13
27-08-2024

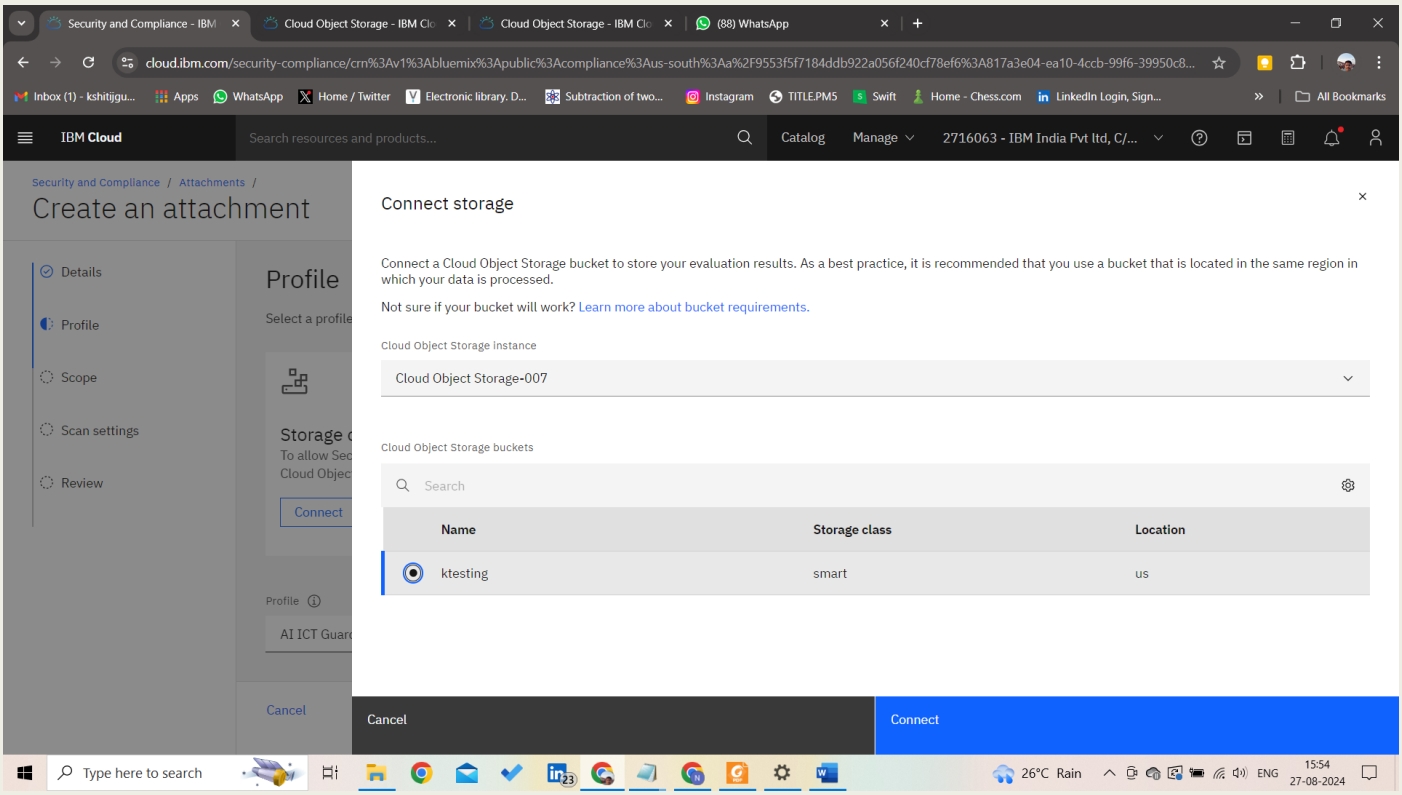

Security and Compliance - IBM
cloud.ibm.com/security-compliance/crn%3Av1%3Abluemix%3Apublic%3Acompliance%3Aus-south%3Aa%2F9553f5f7184ddb922a056f240cf78ef6%3A440711d4-9a9f-4f7a-bfe9-a1a9a622...
IBM Cloud
Search resources and products...
Catalog
Manage
2716063 - IBM India Pvt ltd, C/...
Security and Compliance / Attachments /
Create an attachment
Authorize service to service access for Security and Compliance
Select a target service
Select a target service for Security and Compliance to access as the source service. Only one service can be added at a time.
Target service
Cloud Object Storage
region
Region
All regions
serviceInstance
string equals
serviceInstance
serviceInstance
resource
string equals
resourceType
Cancel
Review
Type here to search
26°C Rain
ENG
15:14
27-08-2024

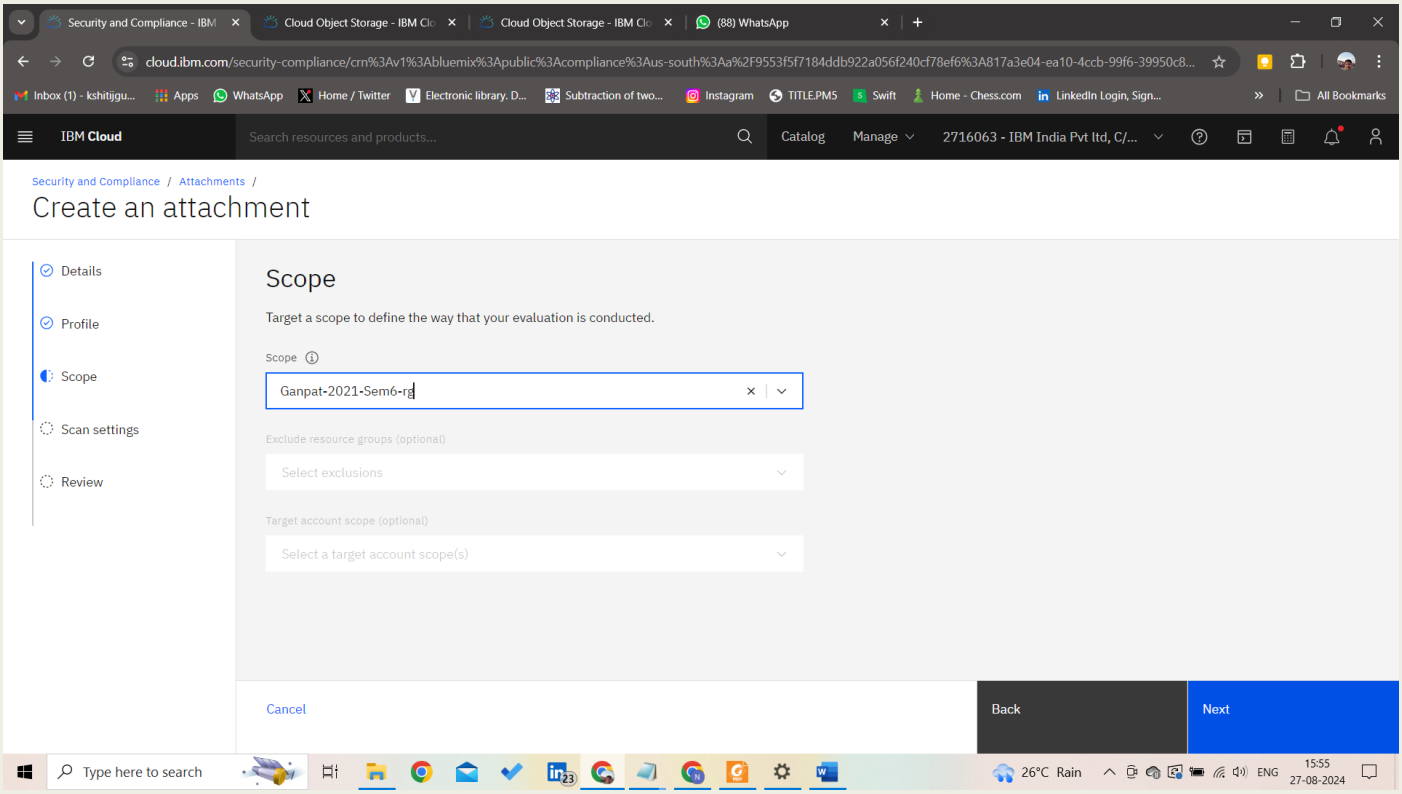


Now select the serviceInstance and then click on the checkbox at bottom for Writer.

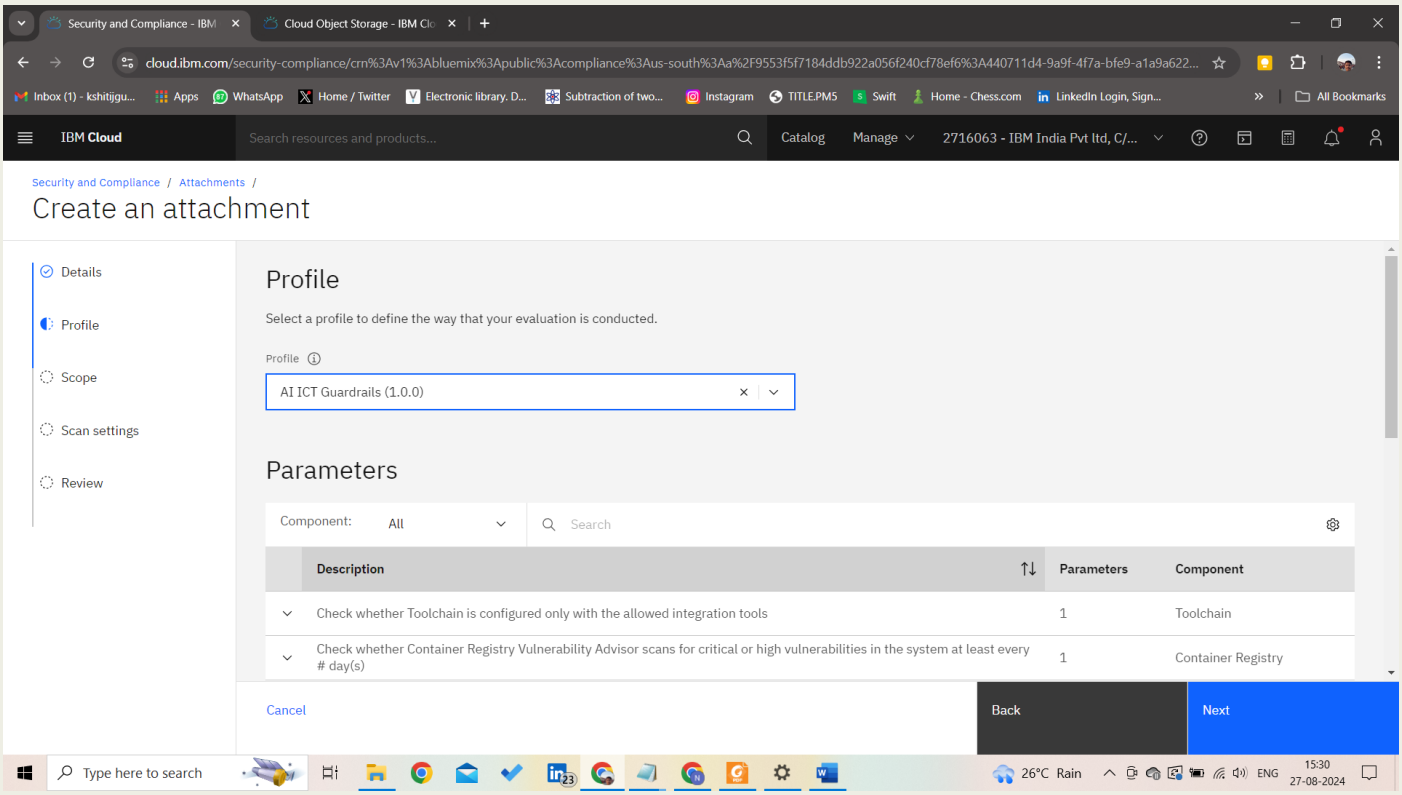


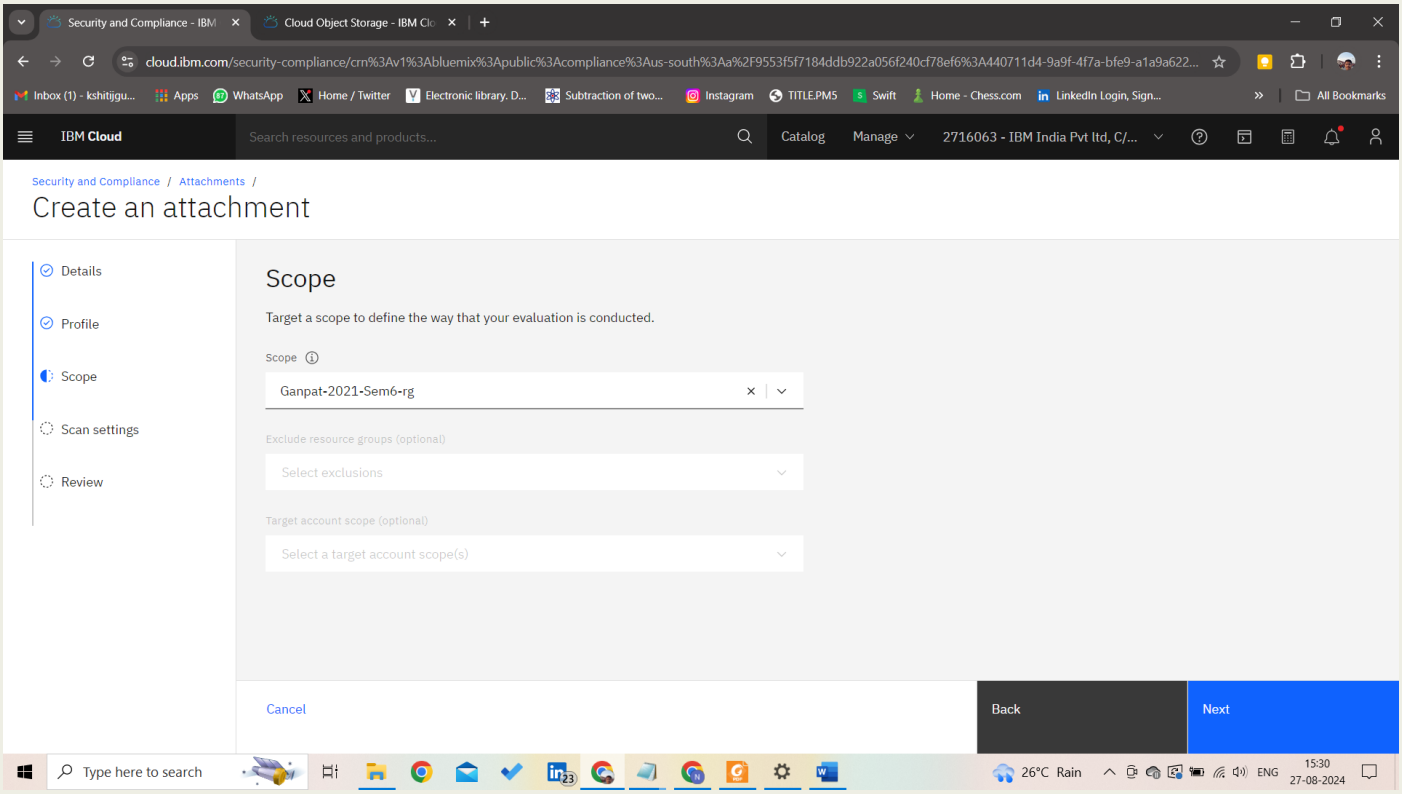

Review service to service authorization for Security and Compliance
Please review assignment before creating the following access.
Target service
Cloud Object Storage
serviceInstance string equals
Cloud Object Storage-007 (45d63717-9d4f-4f3e-bd8a-f419c3b609b1)
1 Role
Service access
Writer
Cancel
Assign
Create an attachment
Cancel
Review


Connect storage
Connect a Cloud Object Storage bucket to store your evaluation results. As a best practice, it is recommended that you use a bucket that is located in the same region in which your data is processed.
Not sure if your bucket will work? Learn more about bucket requirements.
Cloud Object Storage instance
Cloud Object Storage-007
Cloud Object Storage buckets
Search
Name
Storage class
Location
ktesting
smart
us
Create an attachment
Cancel
Connect



Select any bucket testsecurityandcompliance and connect.




Security and Compliance - IBM
Cloud Object Storage - IBM Clo
cloud.ibm.com/security-compliance/crn%3Av1%3Abluemix%3Apublic%3Acompliance%3Aus-south%3Aa%2F9553f5f7184ddb922a056f240cf78ef6%3A440711d4-9a9f-4f7a-bfe9-a1a9a622...
IBM Cloud
Search resources and products...
Catalog
Manage
2716063 - IBM India Pvt ltd, C/...
Security and Compliance / Attachments /
Create an attachment
Details
Profile
Scope
Scan settings
Review
Scope
Target a scope to define the way that your evaluation is conducted.
Scope
Ganpat-2021-Sem6-rg
Exclude resource groups (optional)
Select exclusions
Target account scope (optional)
Select a target account scope(s)
Cancel
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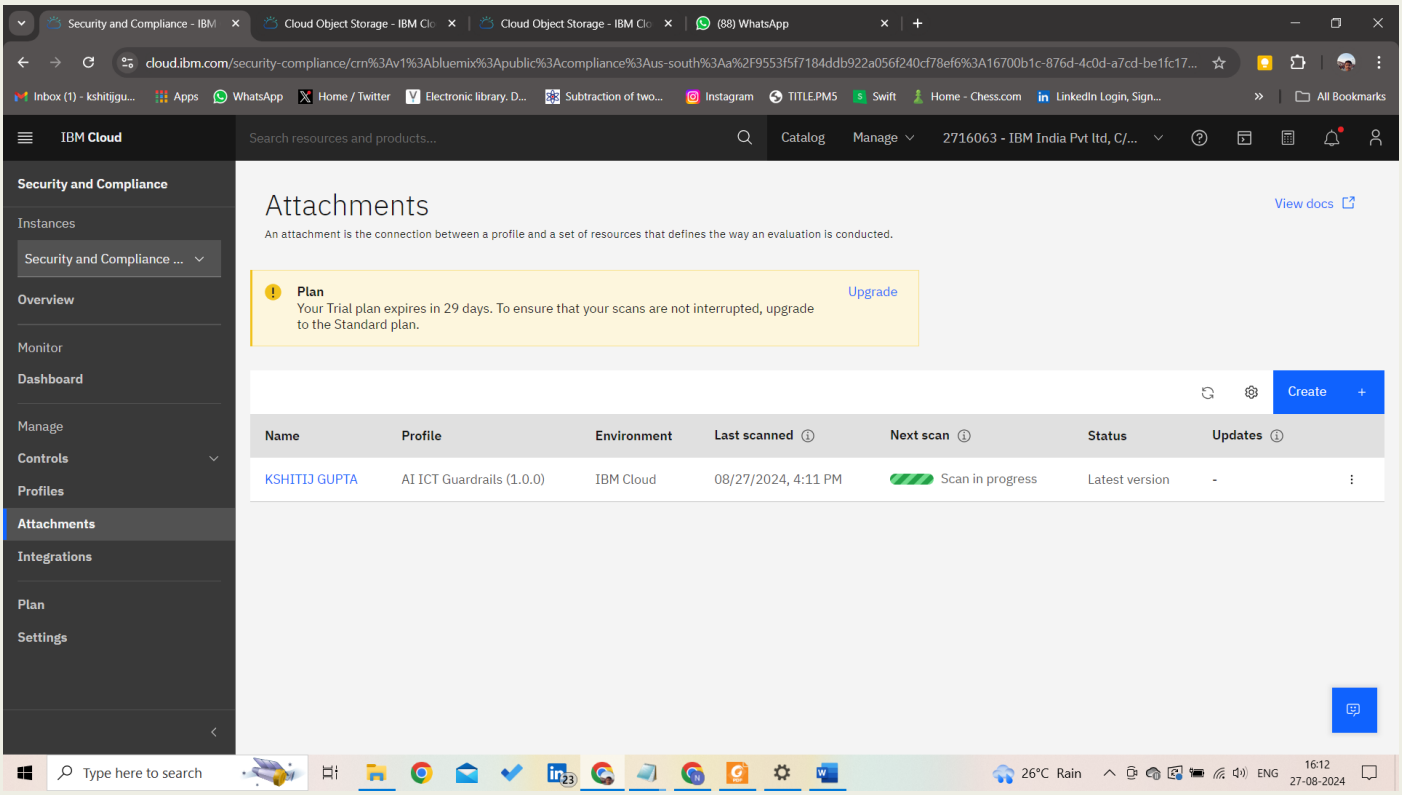
Type here to search
26°C Rain
ENG
15:30
27-08-2024


Security and Compliance - IBM
Cloud Object Storage - IBM Clo
Cloud Object Storage - IBM Clo
(88) WhatsApp
cloud.ibm.com/security-compliance/crn%3Av1%3Abluemix%3Apublic%3Acompliance%3Aus-south%3Aa%2F9553f5f7184ddb922a056f240cf78ef6%3A16700b1c-876d-4c0d-a7cd-be1fc17...
IBM Cloud
Search resources and products...
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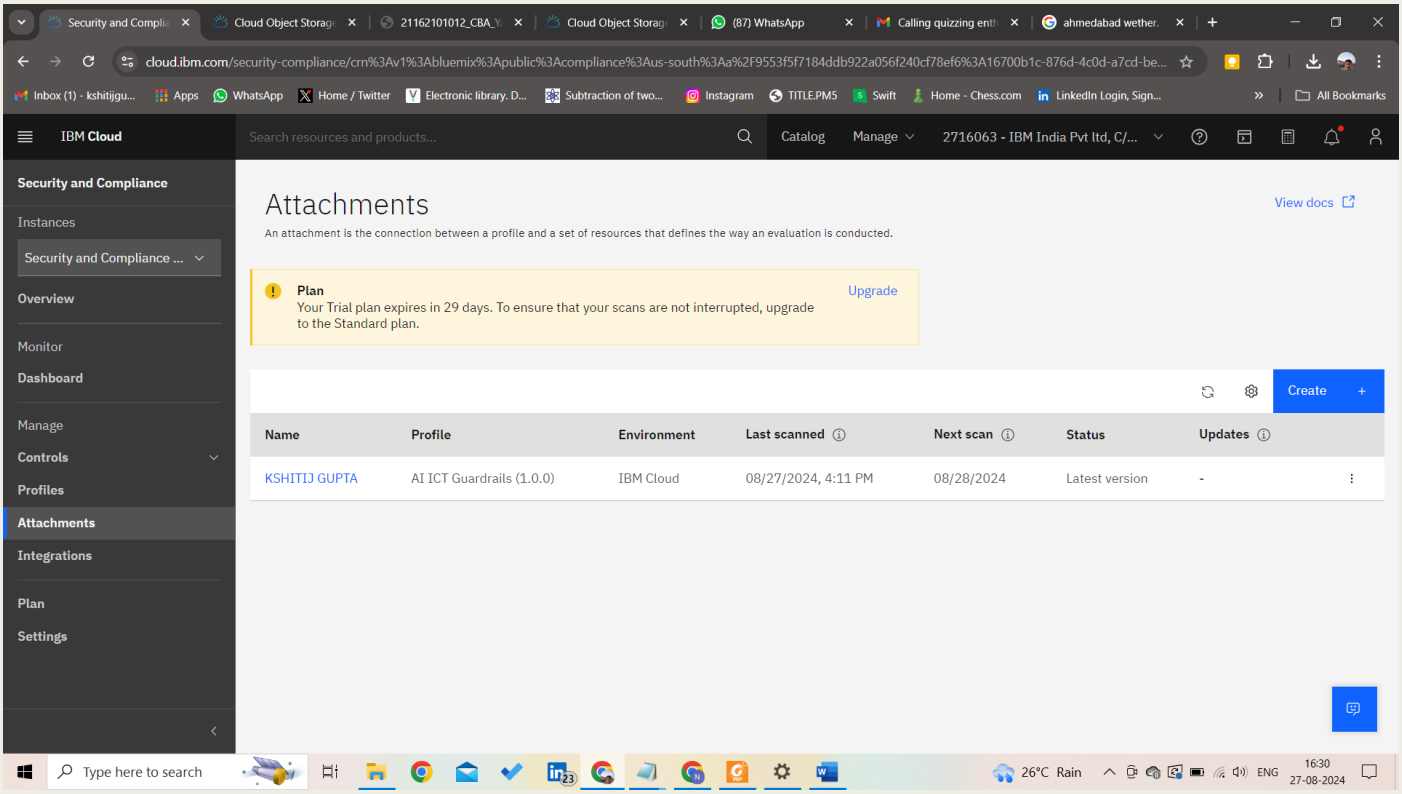
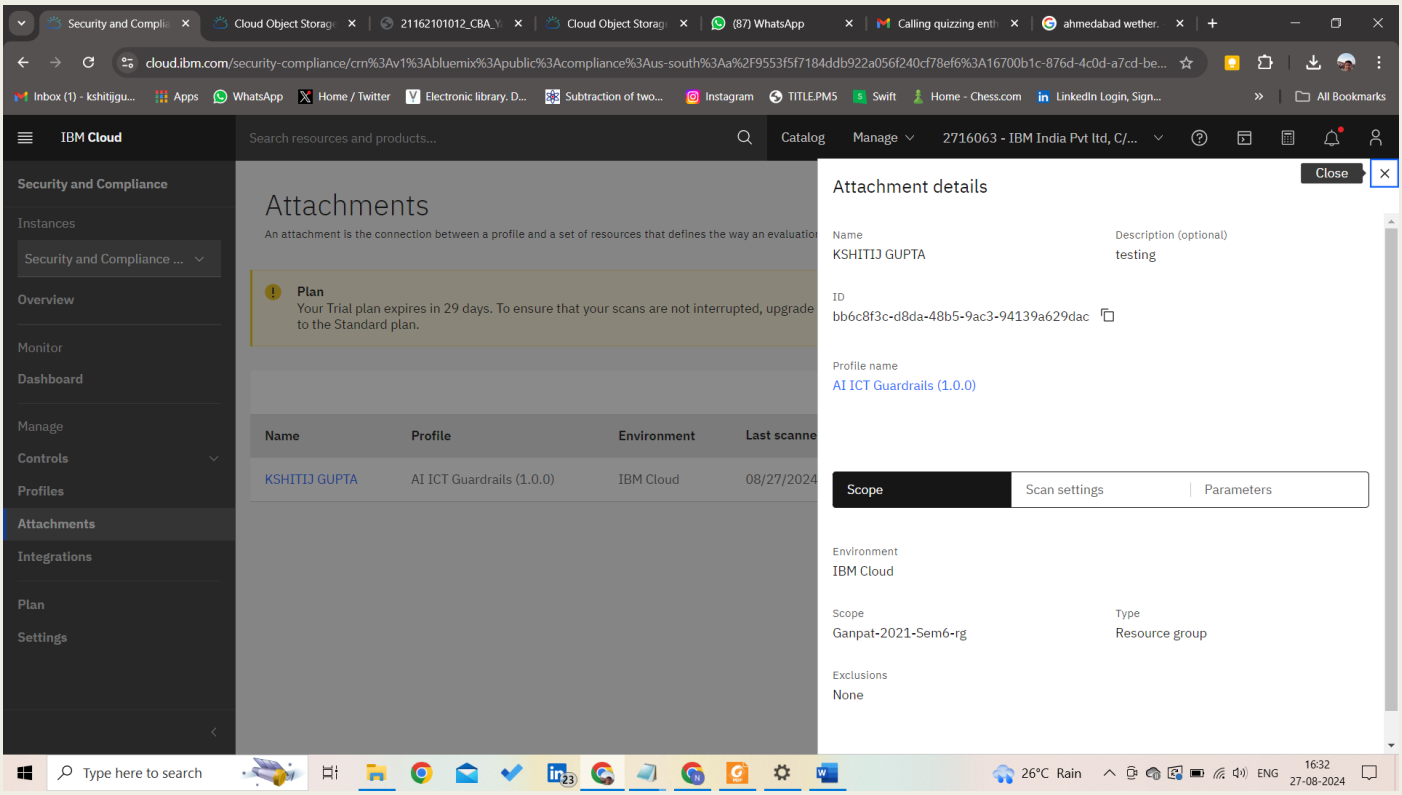
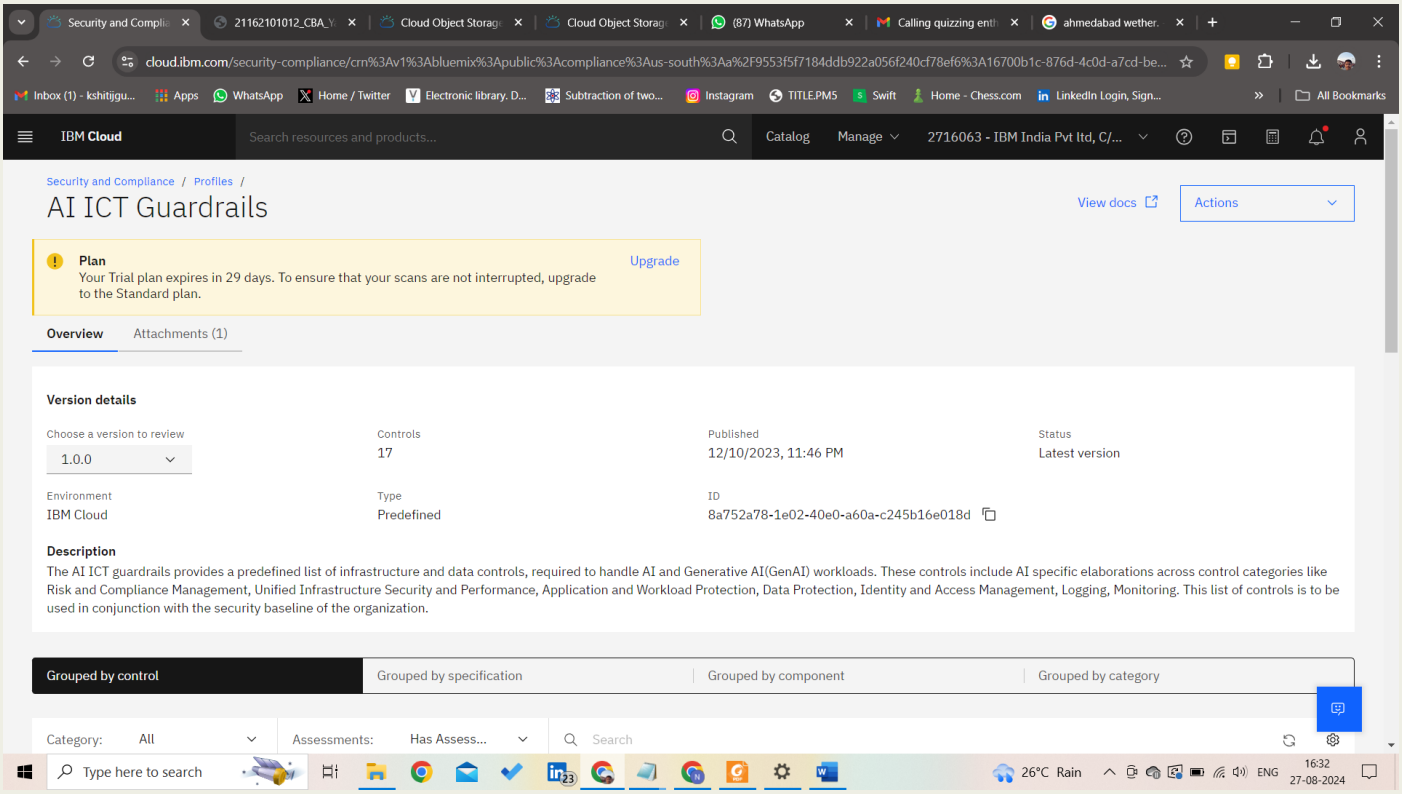
Security and Compliance
Instances
Security and Compliance ...
Overview
Monitor
Dashboard
Manage
Controls
Profiles
Attachments
Integrations
Plan
Settings
Attachments
View docs
An attachment is the connection between a profile and a set of resources that defines the way an evaluation is conducted.
Plan
Your Trial plan expires in 29 days. To ensure that your scans are not interrupted, upgrade to the Standard plan.
Upgrade
Create
Name
Profile
Environment
Last scanned
Next scan
Status
Updates
KSHITIJ GUPTA
AI ICT Guardrails (1.0.0)
IBM Cloud
08/27/2024, 4:11 PM
Scan in progress
Latest version
-
Type here to search
26°C Rain
ENG
16:12
27-08-2024

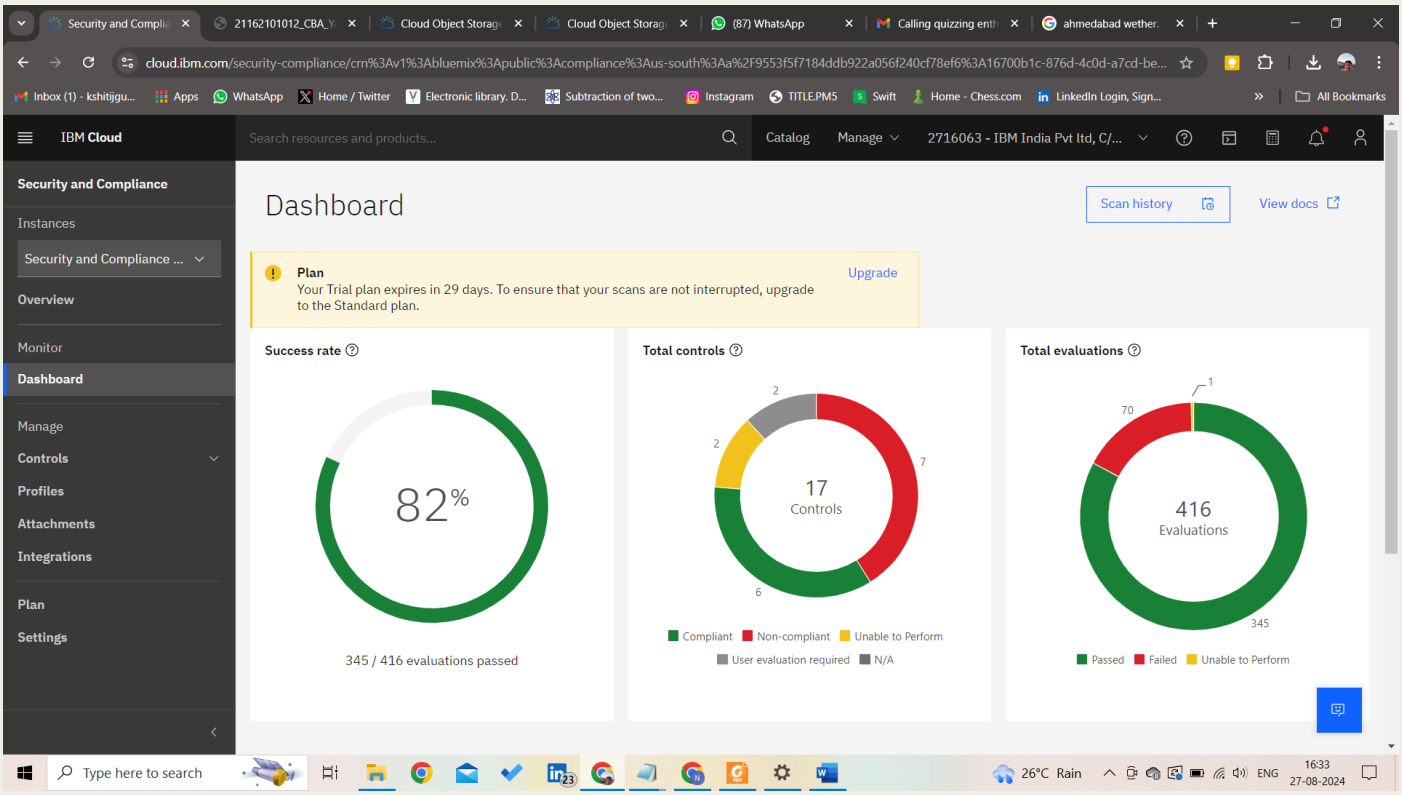


Click on the attachment and click the profile details

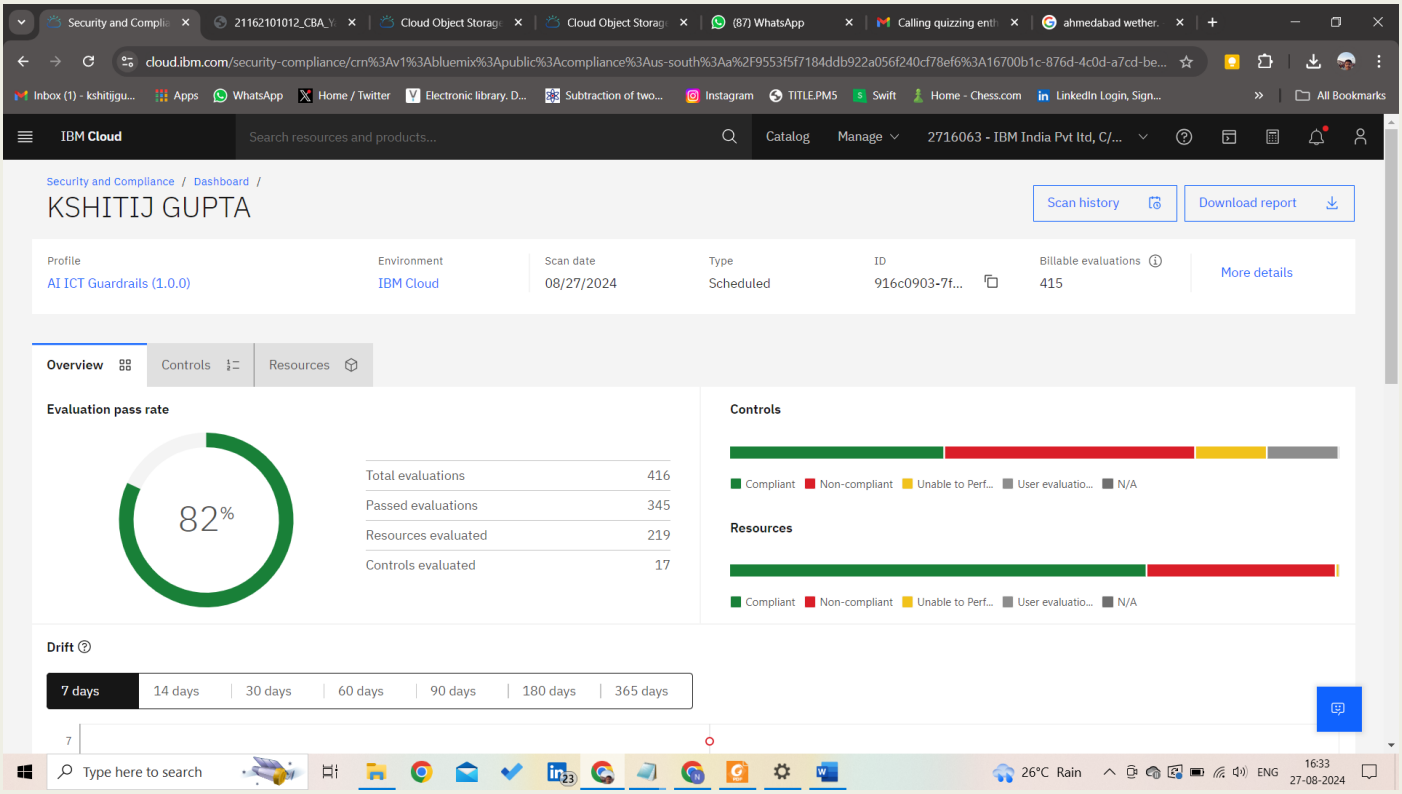




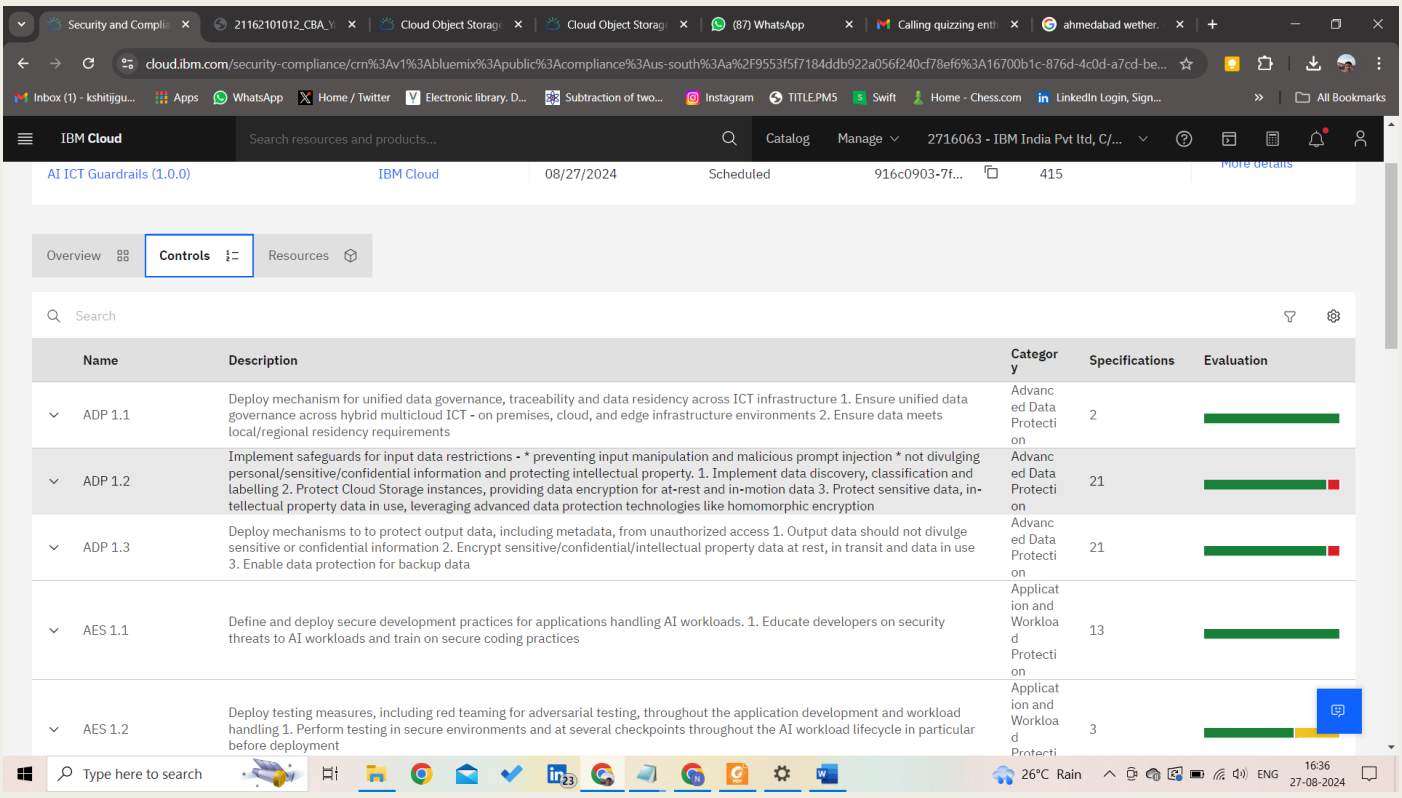
In dashboard on service home, the results are mentioned



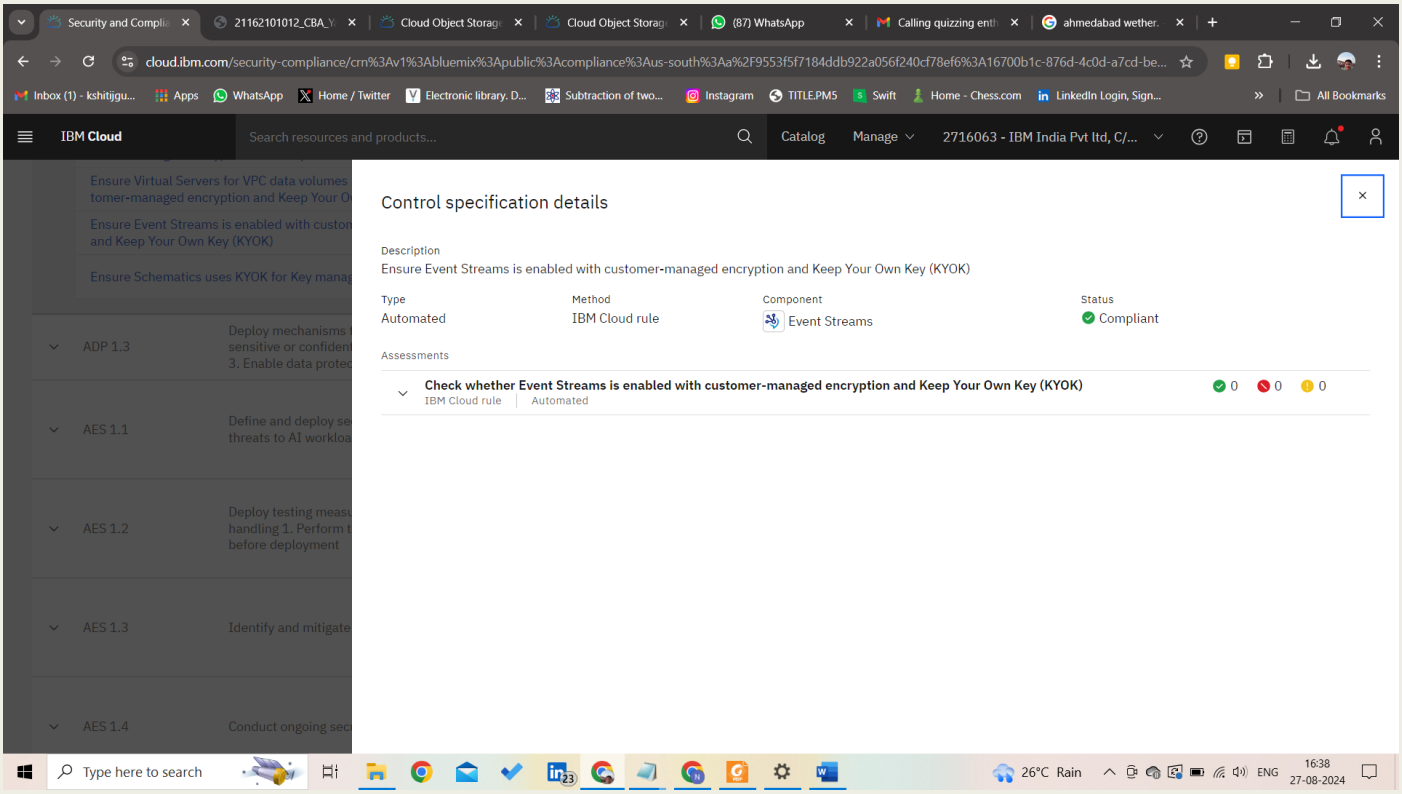
Click on the attachment to check its detailed results



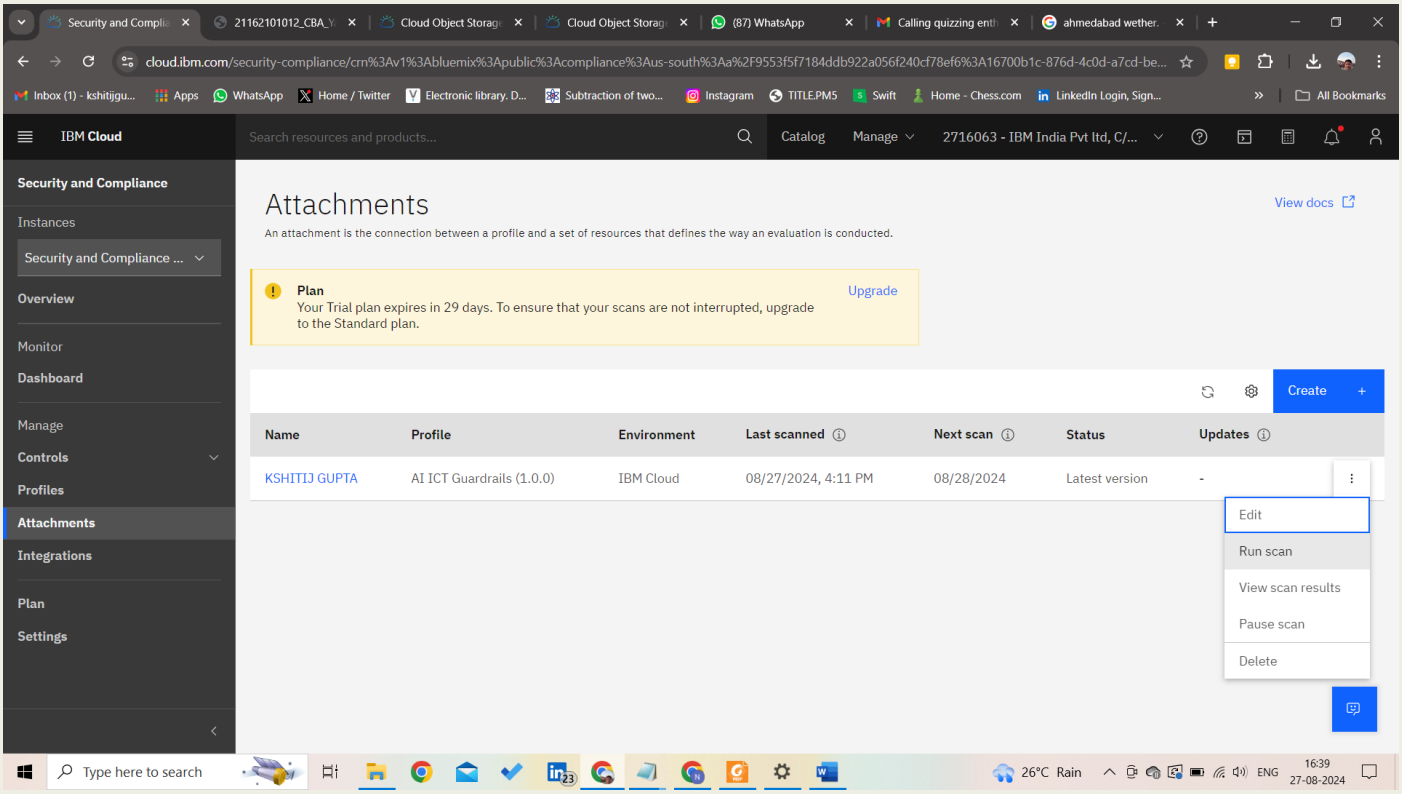
In controls, it shows the security problems like here in case of object storage public access and managed keys

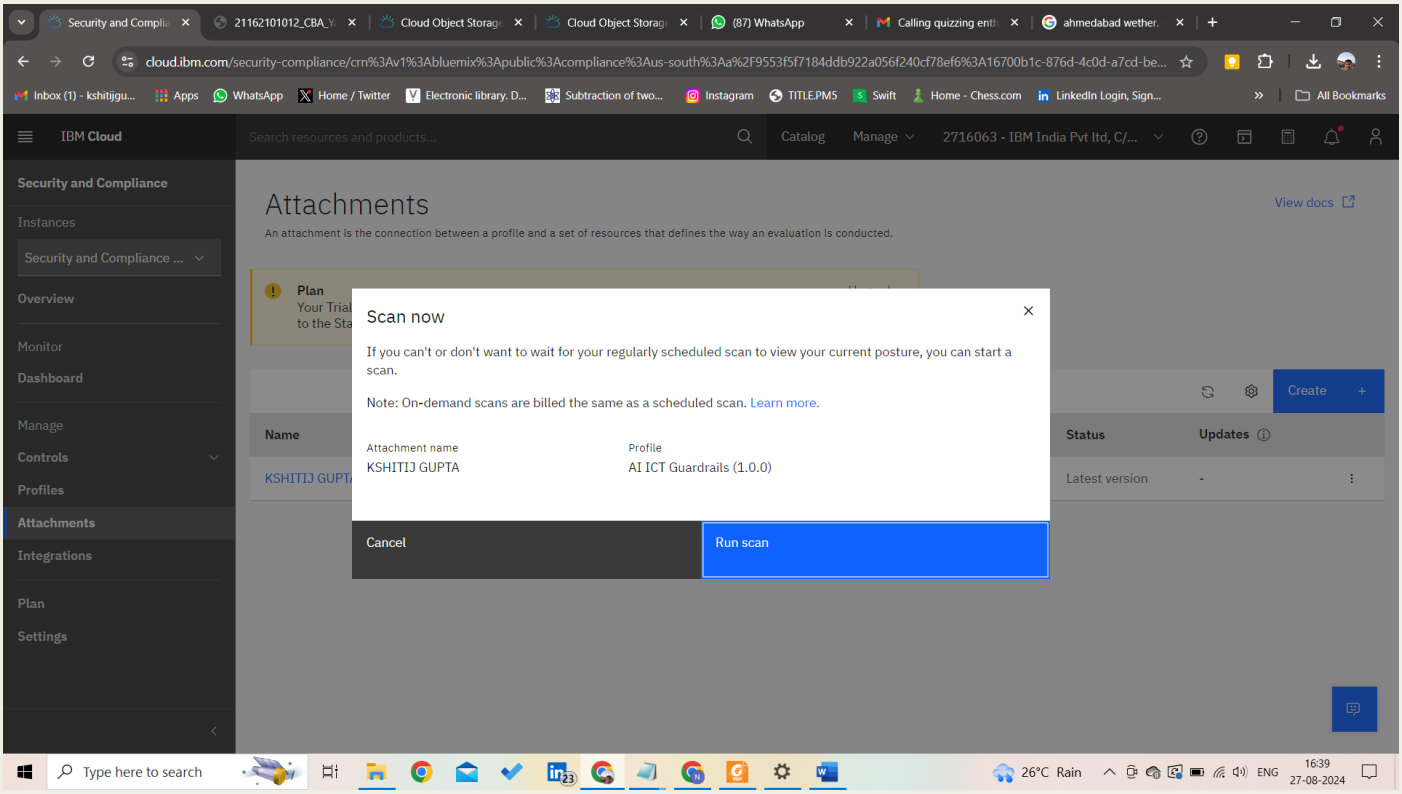


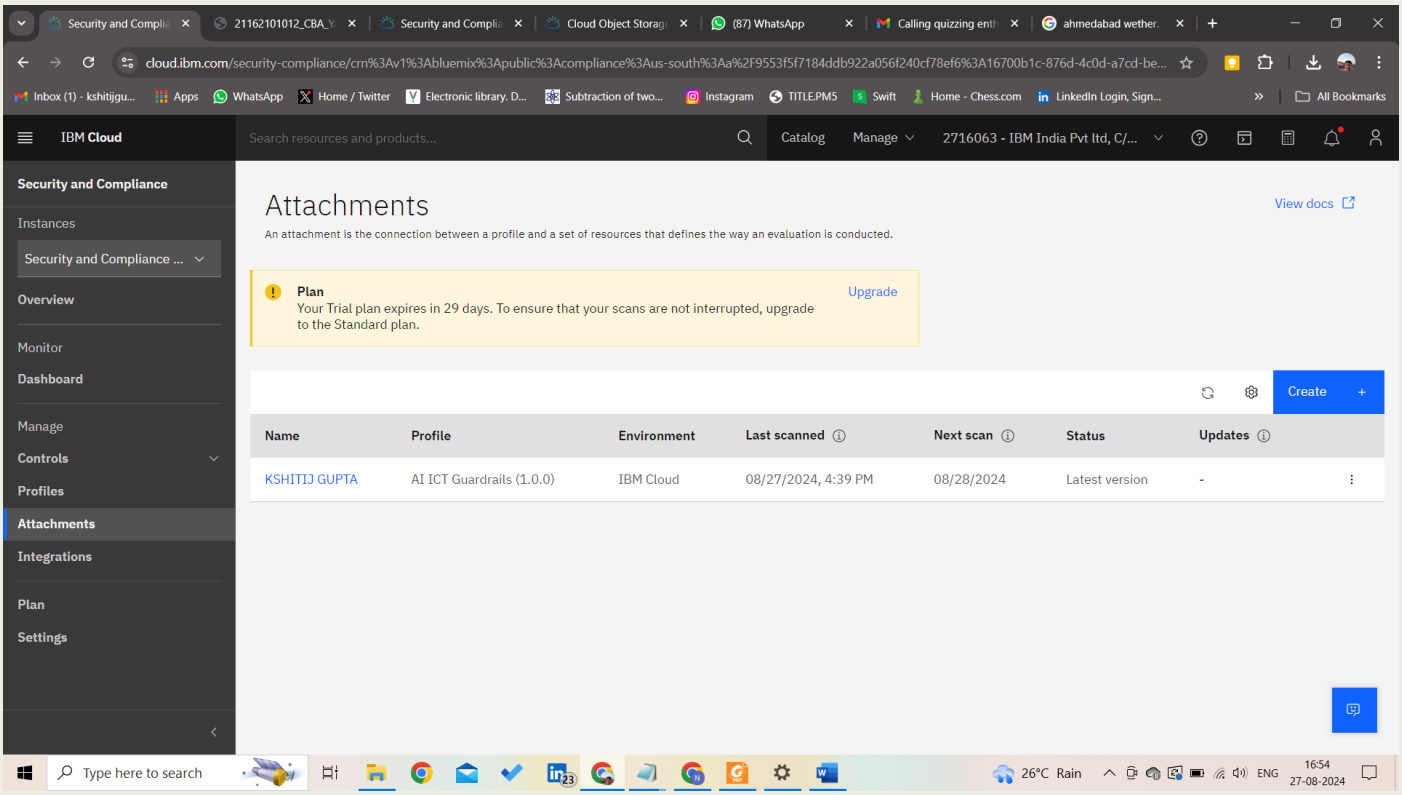
In dashboard of security service, click on the details of control and check the recommended remediation to solve the issue



Also the scan can be run at custom time by option visible in attachments tab on service home



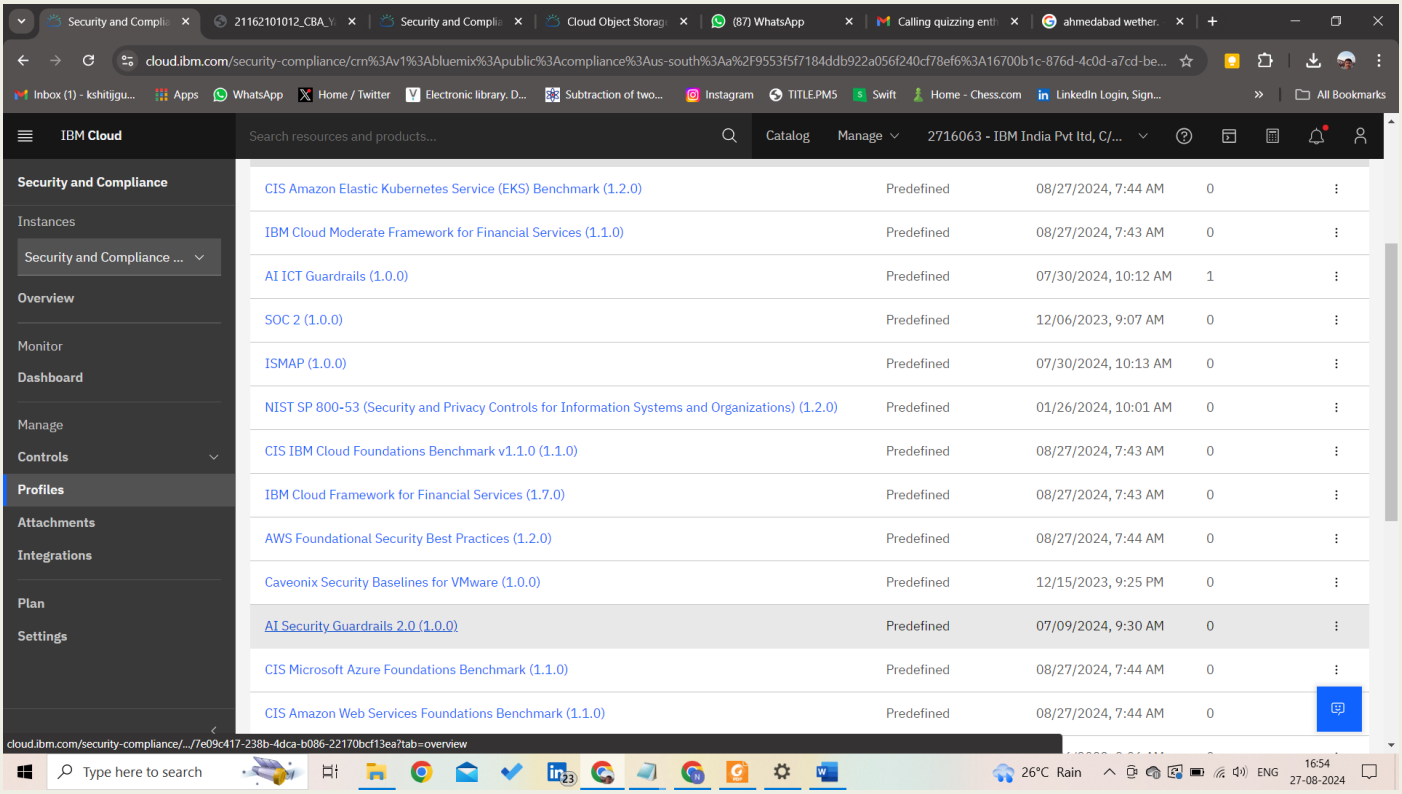




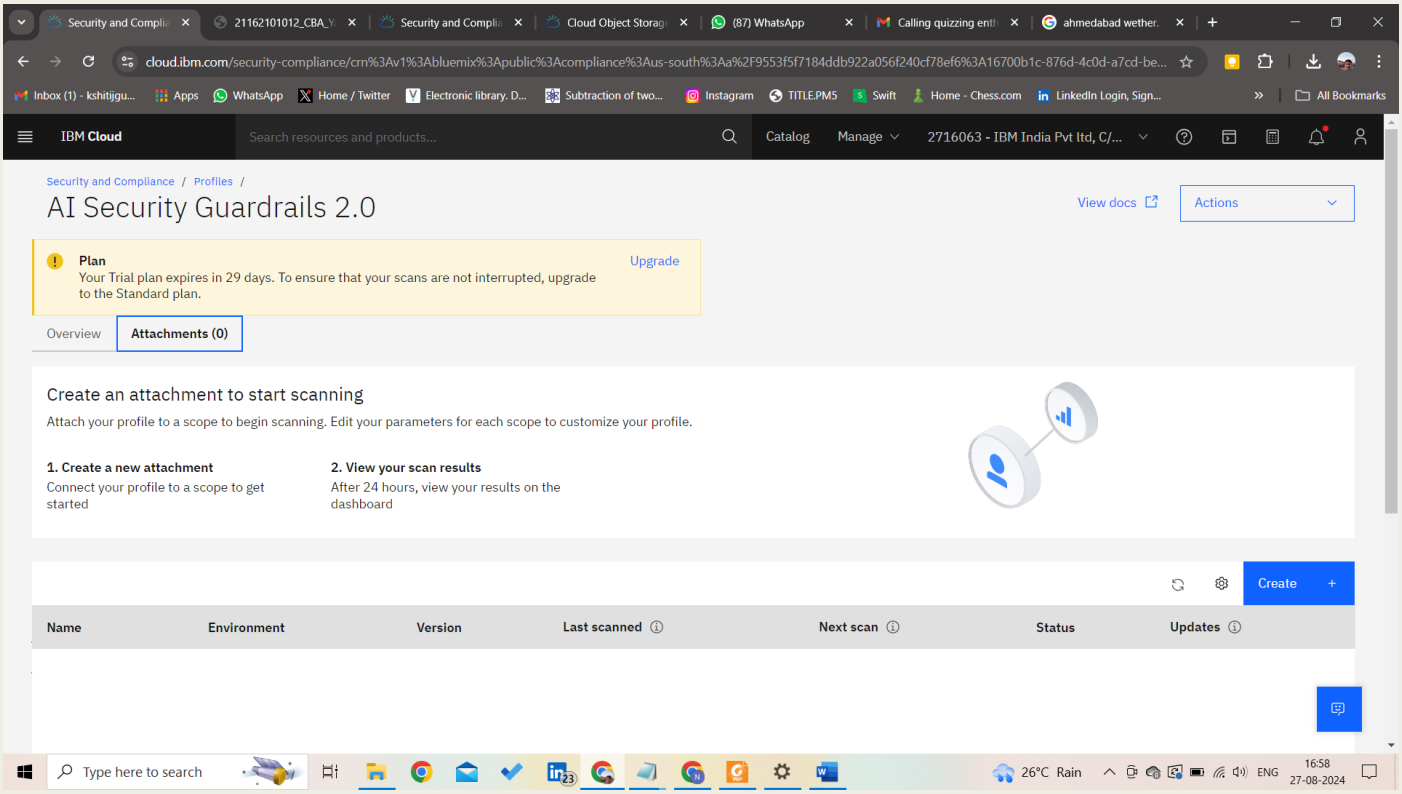
TASK : Identify AI Security Guardrails 2.0 (1.0.0) compliance requirements. Create an Attachment using the predefined AI Security Guardrails profile and initiate security scans. Analyze results to identify issues and Validate any 3 changes to ensure issues are resolved effectively. Example: Toolchain issues, key protect

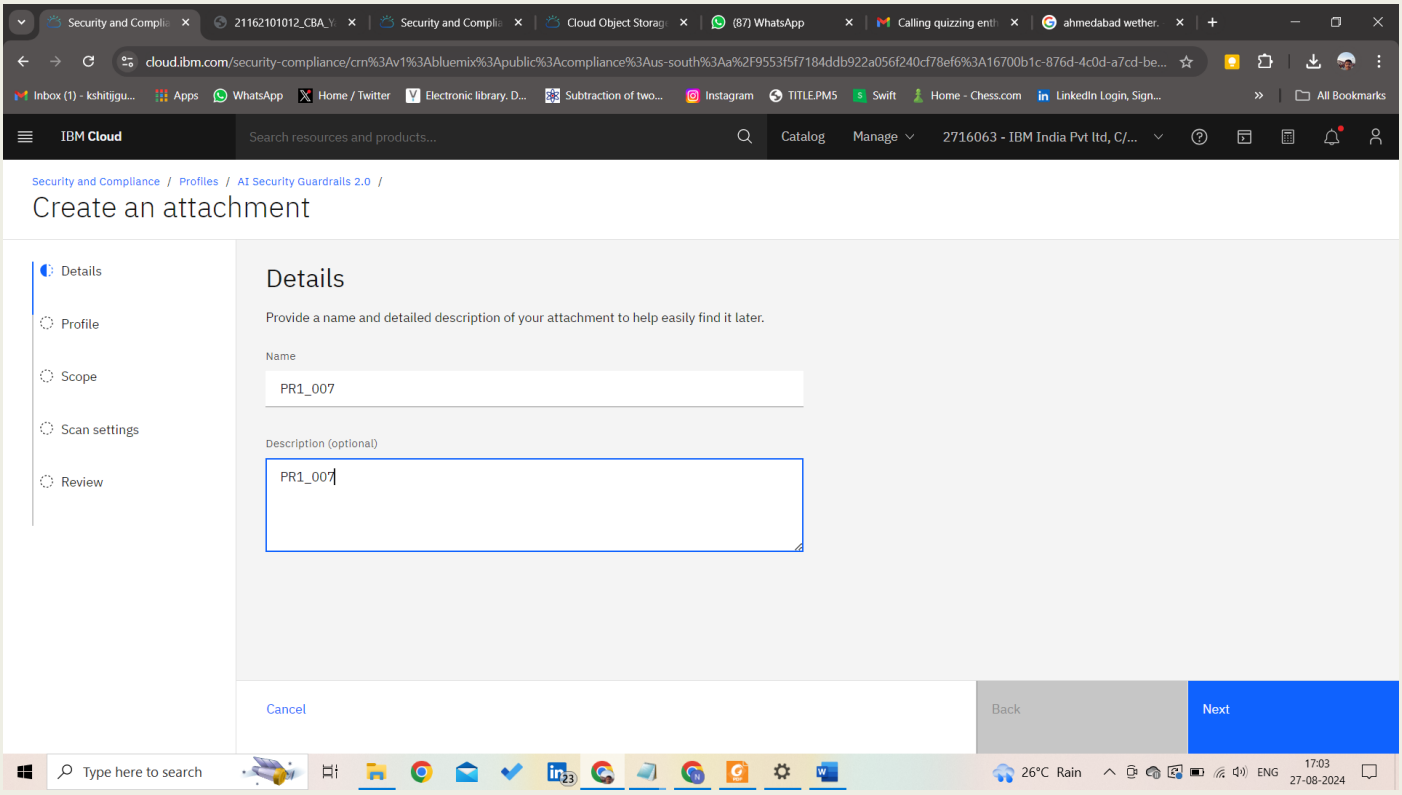
issues, IBM cloud object storage issues, and Watson Machine learning issues can be rectified.

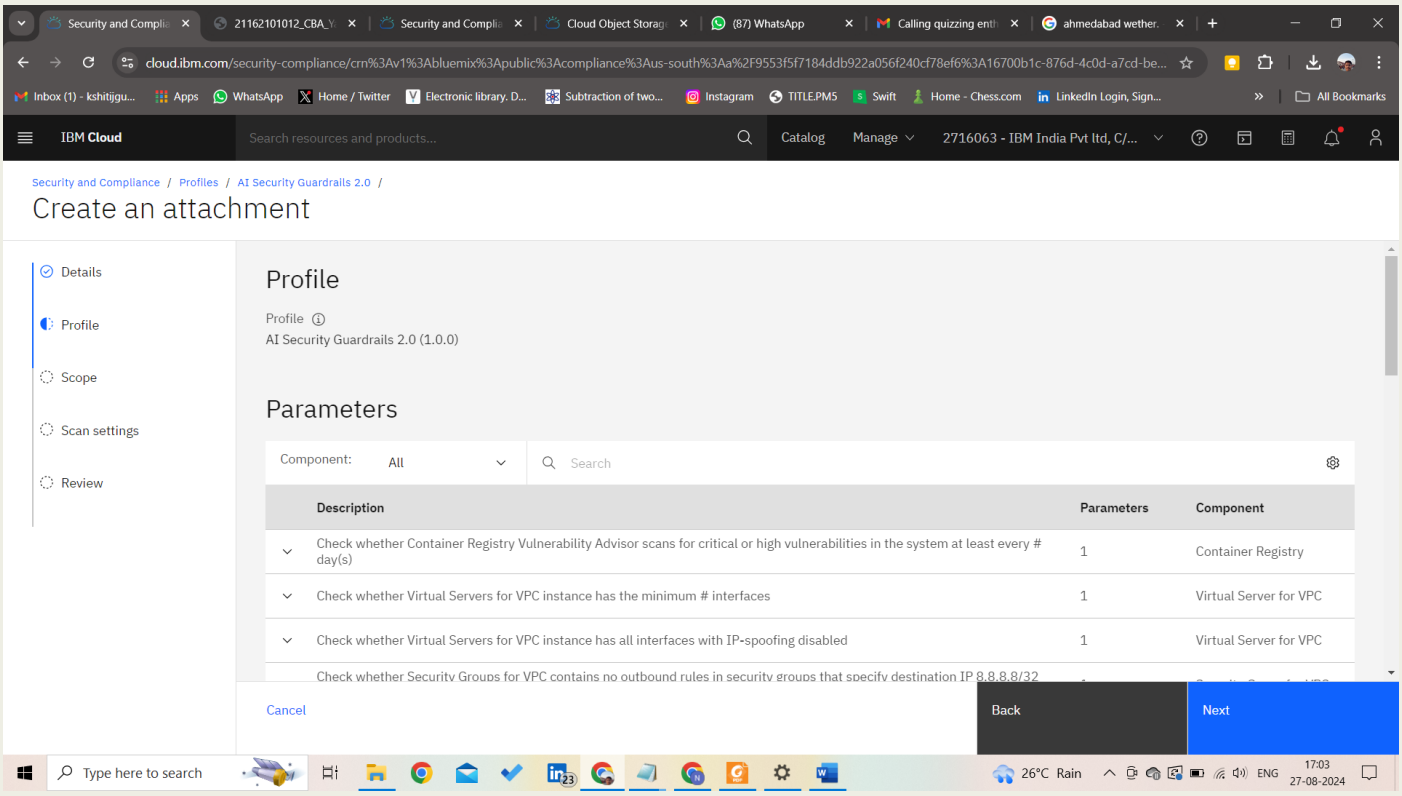
Visit AI Security Guardrails profile



Create new attachment




IBM Cloud
Search resources and products...
Catalog
Manage
2716063 - IBM India Pvt ltd, C/...
Security and Compliance / Profiles / AI Security Guardrails 2.0 /
Create an attachment
Details
Profile
Scope
Scan settings
Review
Details
Provide a name and detailed description of your attachment to help easily find it later.
Name
PR1_007
Description (optional)
PR1_007
Cancel
Back
Next


IBM Cloud
Search resources and products...
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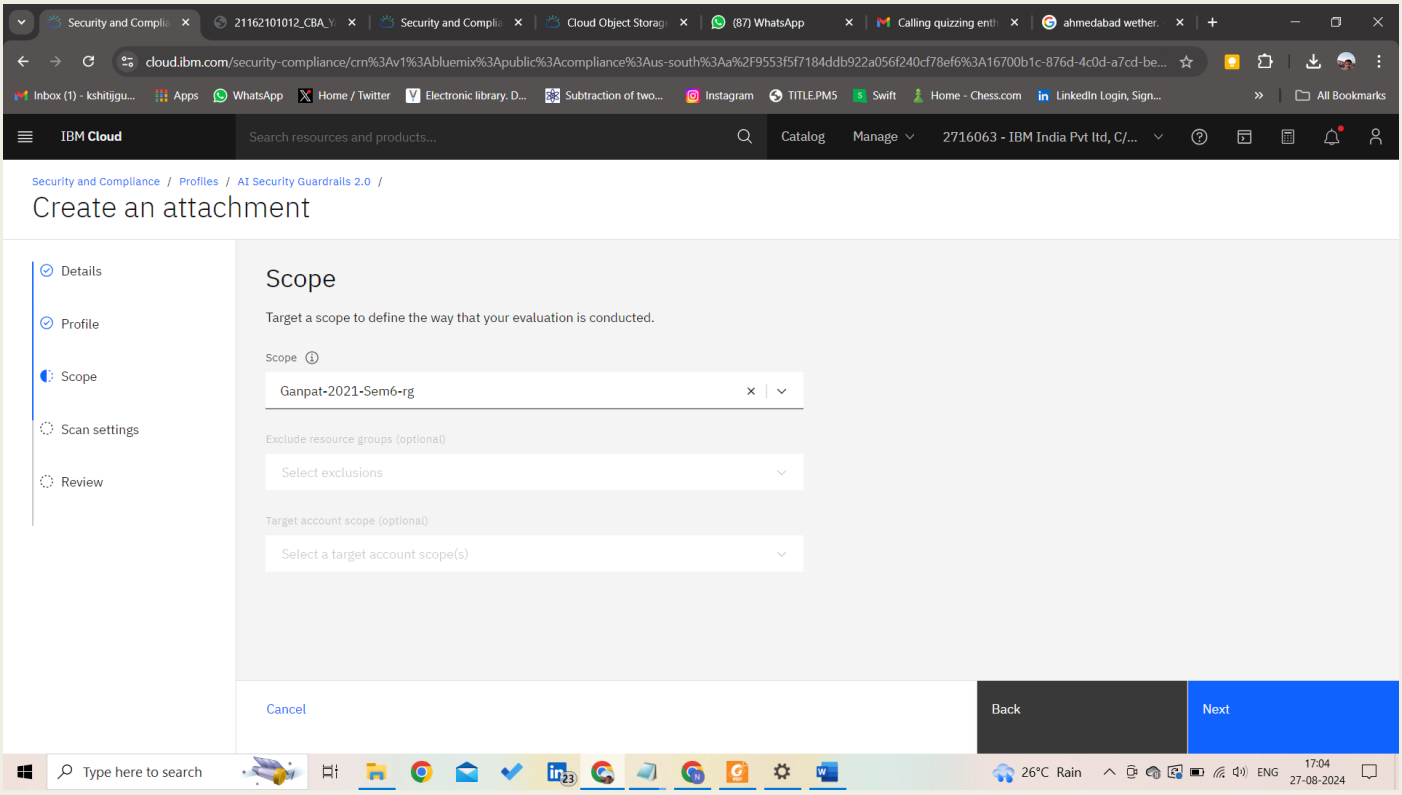
Security and Compliance / Profiles / AI Security Guardrails 2.0 /
Create an attachment
Details
Profile
Scope
Scan settings
Review
Profile
Profile
AI Security Guardrails 2.0 (1.0.0)
Parameters
Component: All
Search
Description
Parameters
Component
Check whether Container Registry Vulnerability Advisor scans for critical or high vulnerabilities in the system at least every # day(s)
1
Container Registry
Check whether Virtual Servers for VPC instance has the minimum # interfaces
1
Virtual Server for VPC
Check whether Virtual Servers for VPC instance has all interfaces with IP-spoofing disabled
1
Virtual Server for VPC
Cancel
Back
Next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Apps
WhatsApp
Home / Twitter
Electronic library. D...
Subtraction of two...
Instagram
TITLE.PM5
Swift
Home - Chess.com
LinkedIn Login, Sign...
All Bookmarks
IBM Cloud
Search resources and products...
Catalog
Manage
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Security and Compliance / Profiles / AI Security Guardrails 2.0 /
Create an attachment
Details
Profile
Scope
Scan settings
Review
Scope
Target a scope to define the way that your evaluation is conducted.
Scope
Ganpat-2021-Sem6-rg
Exclude resource groups (optional)
Select exclusions
Target account scope (optional)
Select a target account scope(s)
Cancel
Back
Next
Type here to search
26°C Rain
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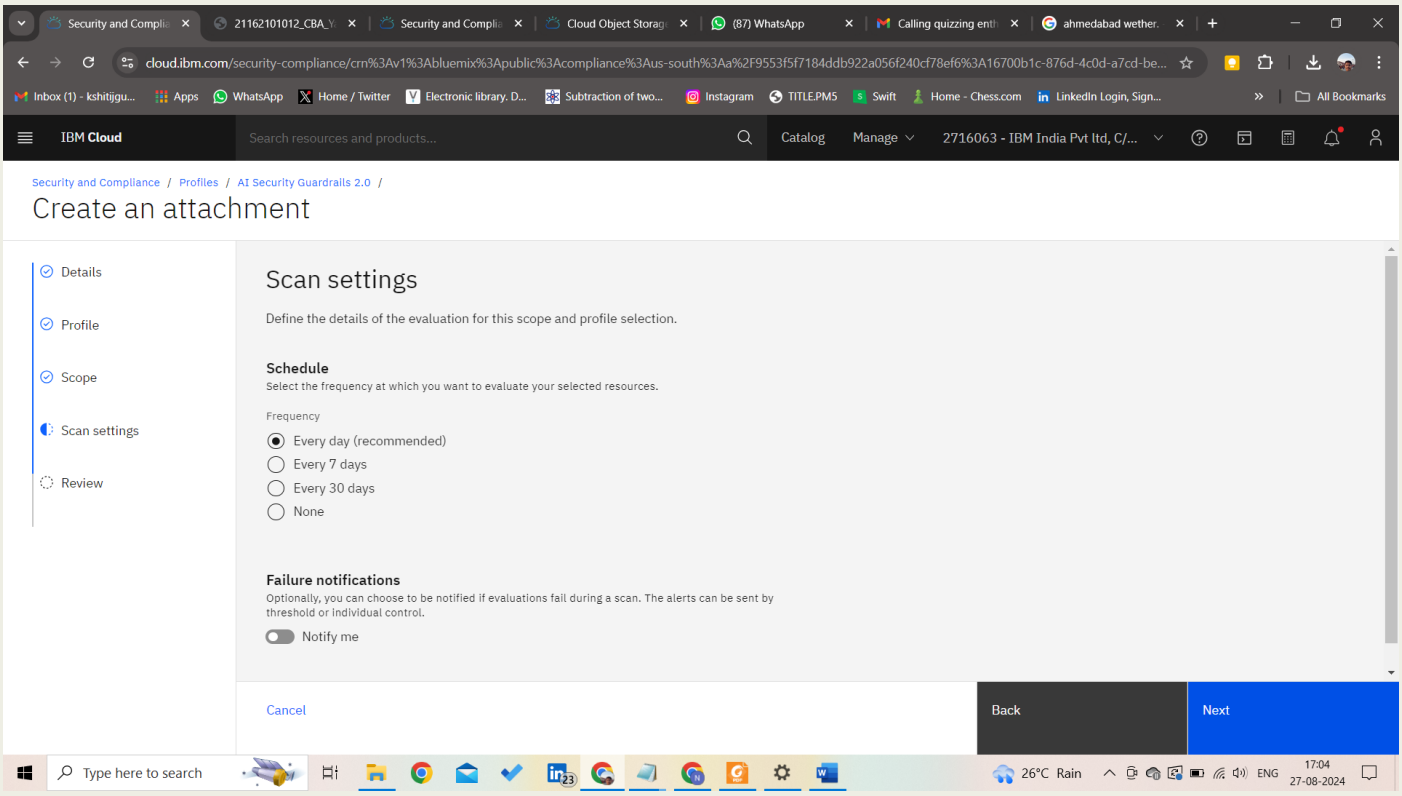
27-08-2024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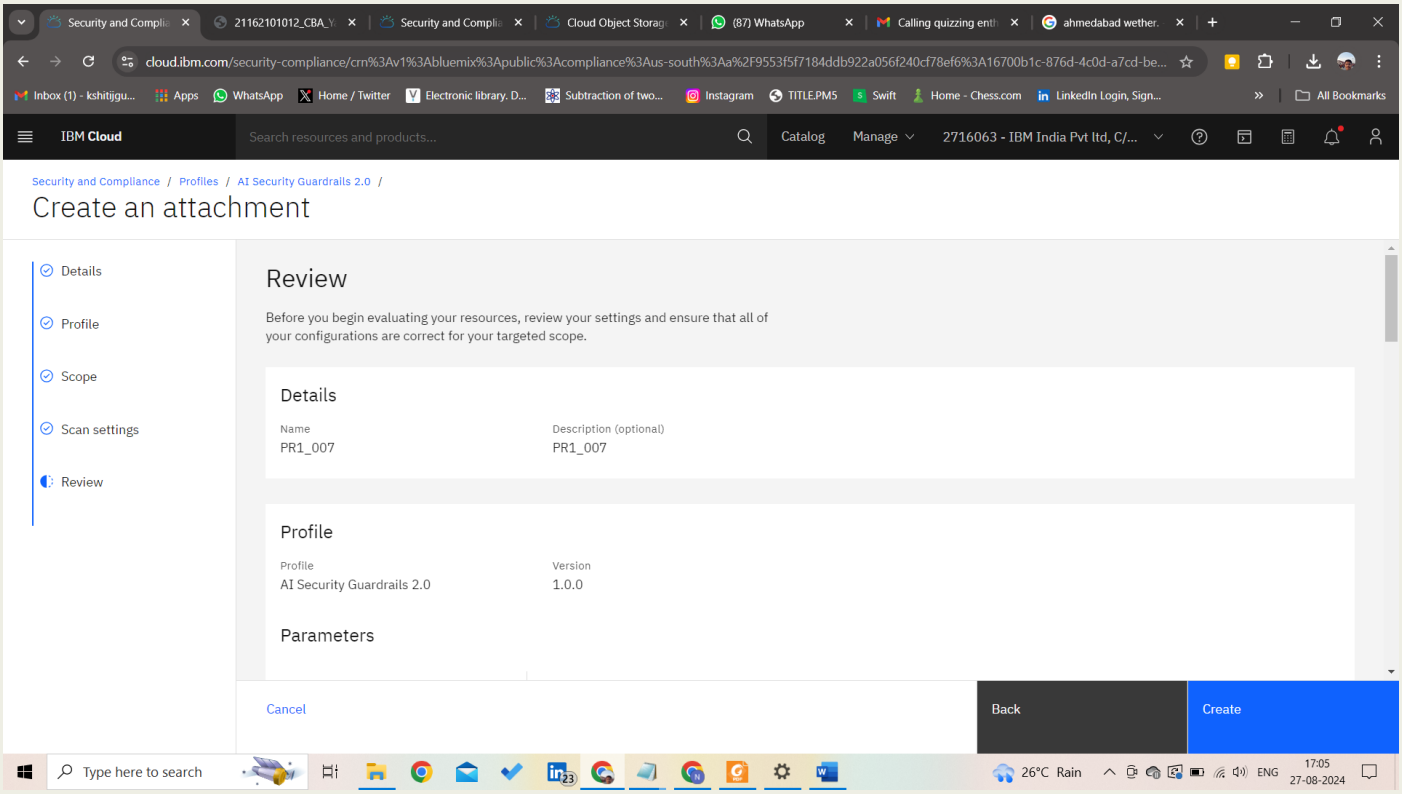
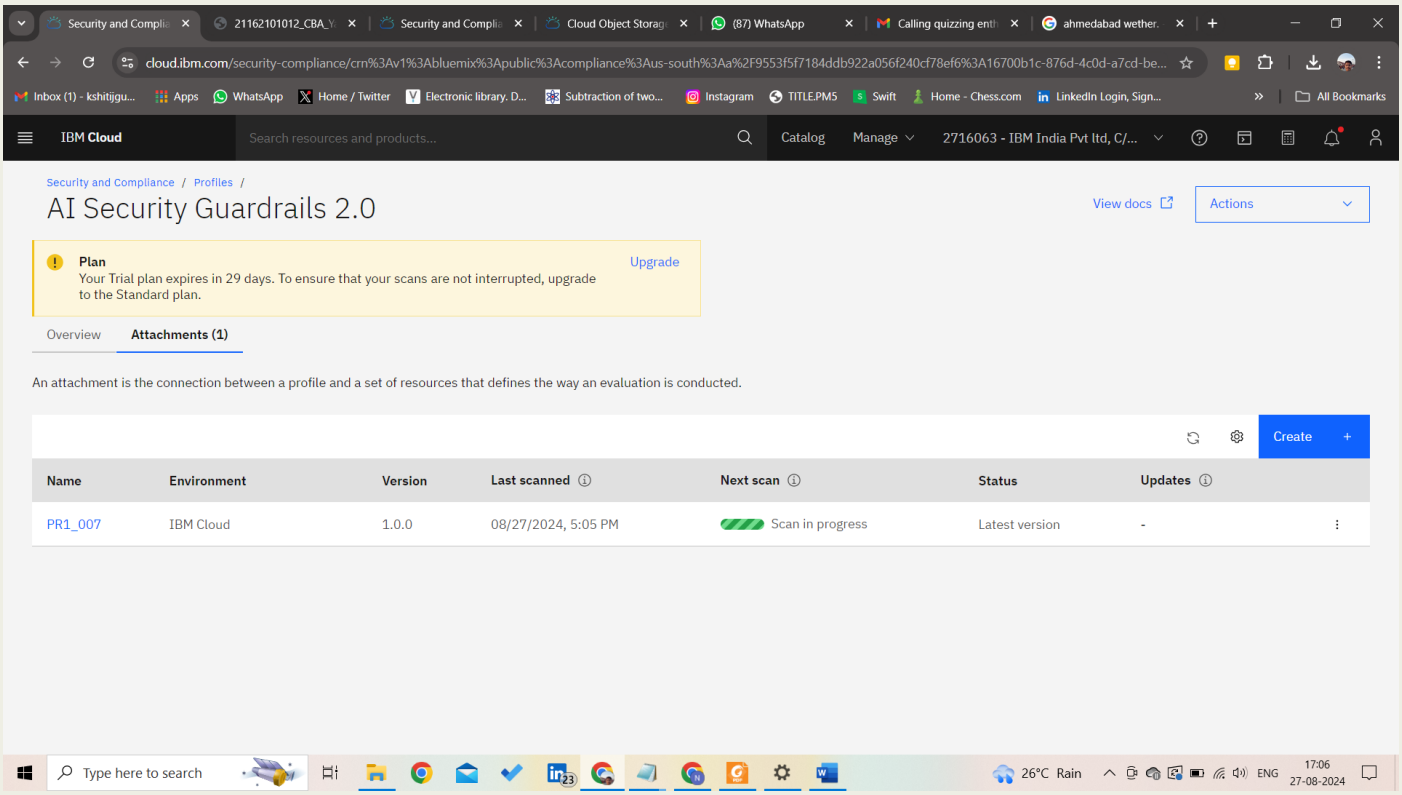
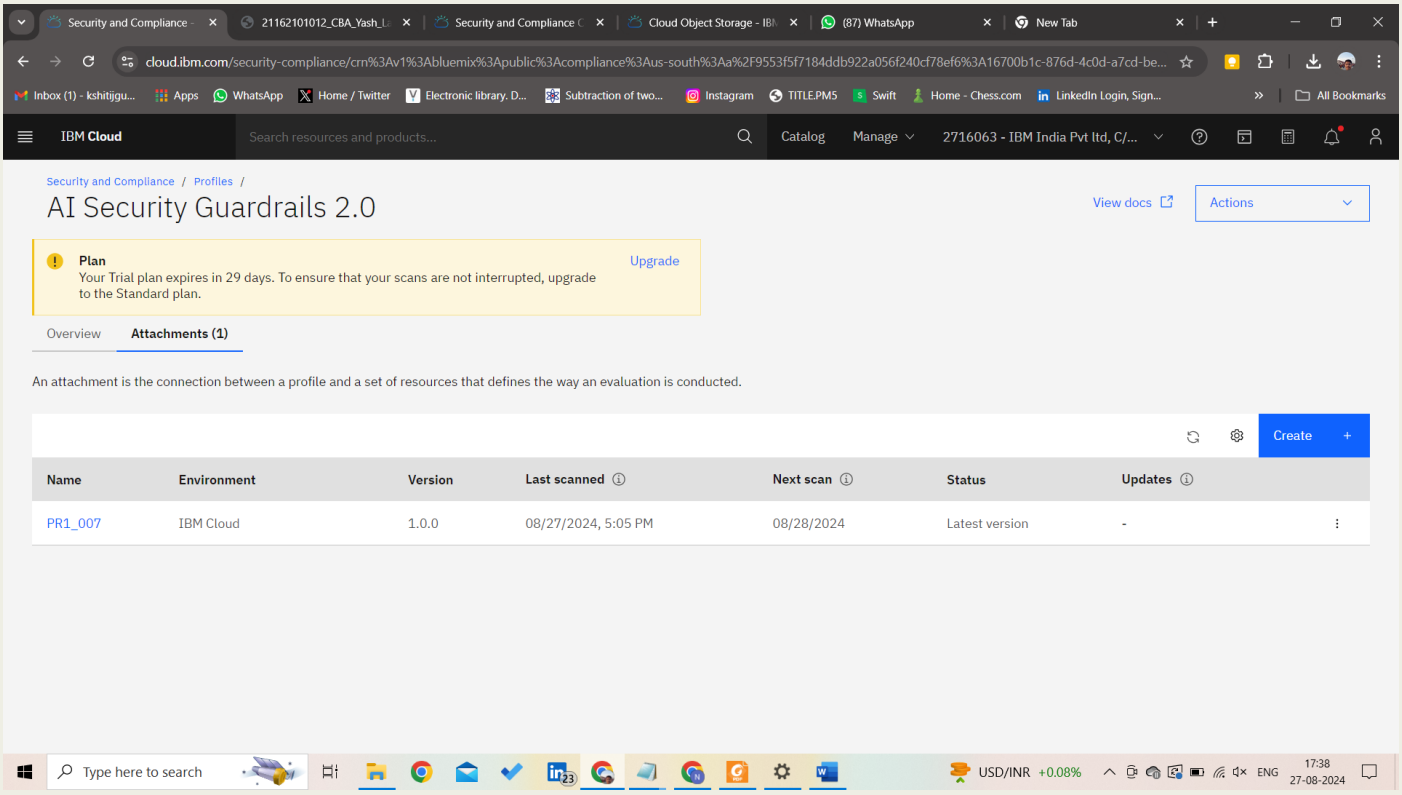
Inbox (1) - kshitijgu...
Apps
WhatsApp
Home / Twitter
Electronic library. D...
Subtraction of two...
Instagram
TITLE.PM5
Swift
Home - Chess.com
LinkedIn Login, Sign...
All Bookmarks
IBM Cloud
Search resources and products...
Catalog
Manage
2716063 - IBM India Pvt ltd, C/...
Security and Compliance / Profiles / AI Security Guardrails 2.0 /
Create an attachment
Details
Profile
Scope
Scan settings
Review
Scan settings
Define the details of the evaluation for this scope and profile selection.
Schedule
Select the frequency at which you want to evaluate your selected resources.
Frequency
Every day (recommended)
Every 7 days
Every 30 days
None
Failure notifications
Optionally, you can choose to be notified if evaluations fail during a scan. The alerts can be sent by threshold or individual control.
Notify me
Cancel
Back
Next
Type here to search
26°C Rain
ENG
17:04
27-08-2024

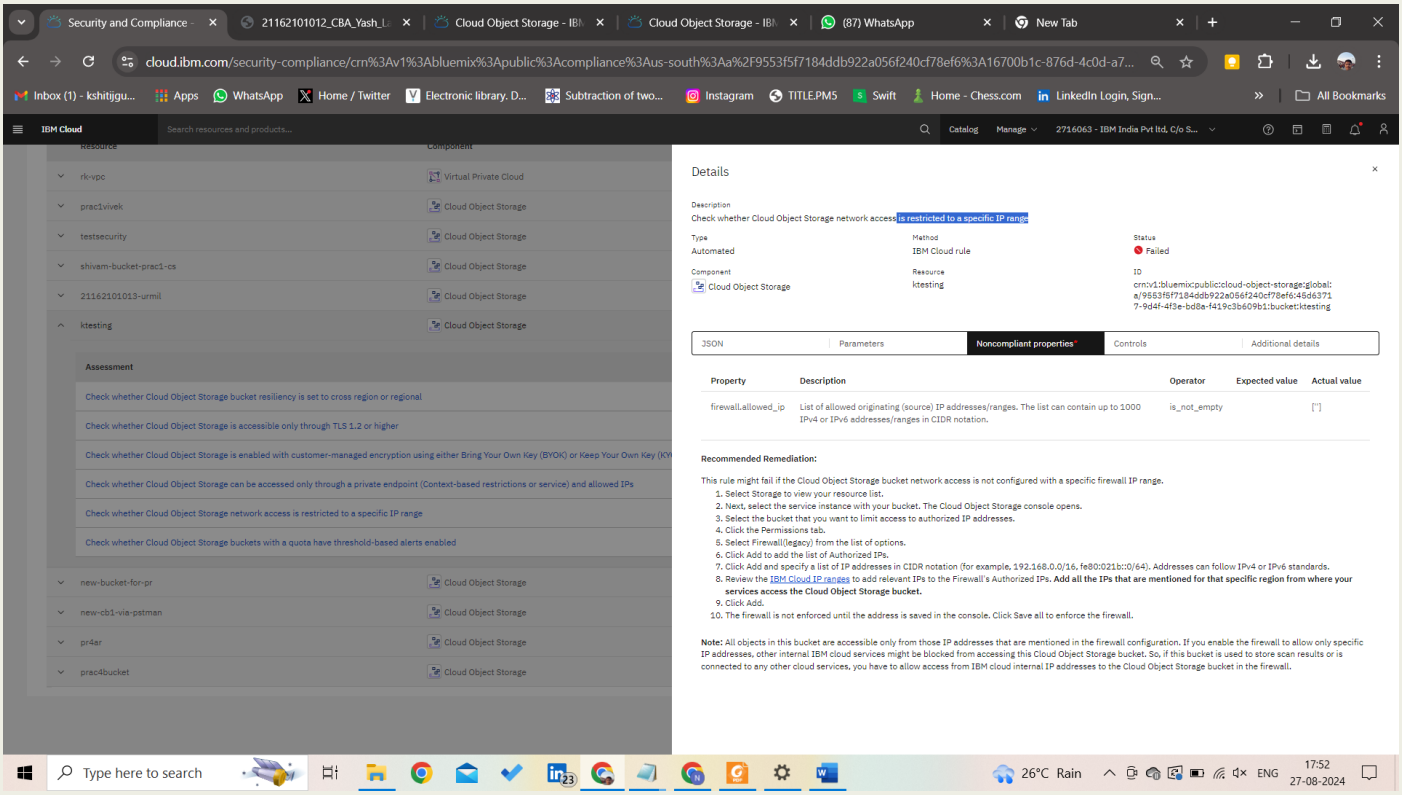


It will take time and let the scan finish

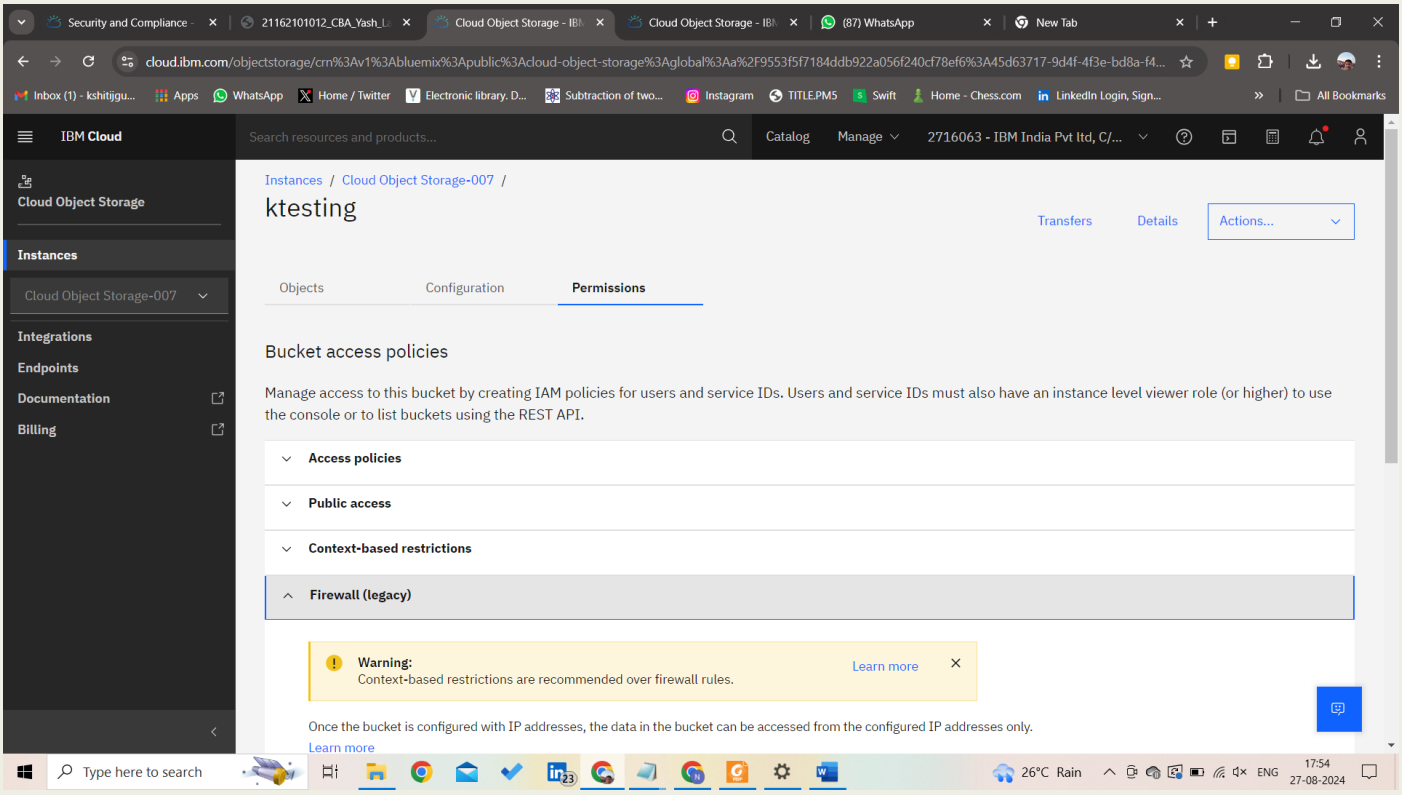


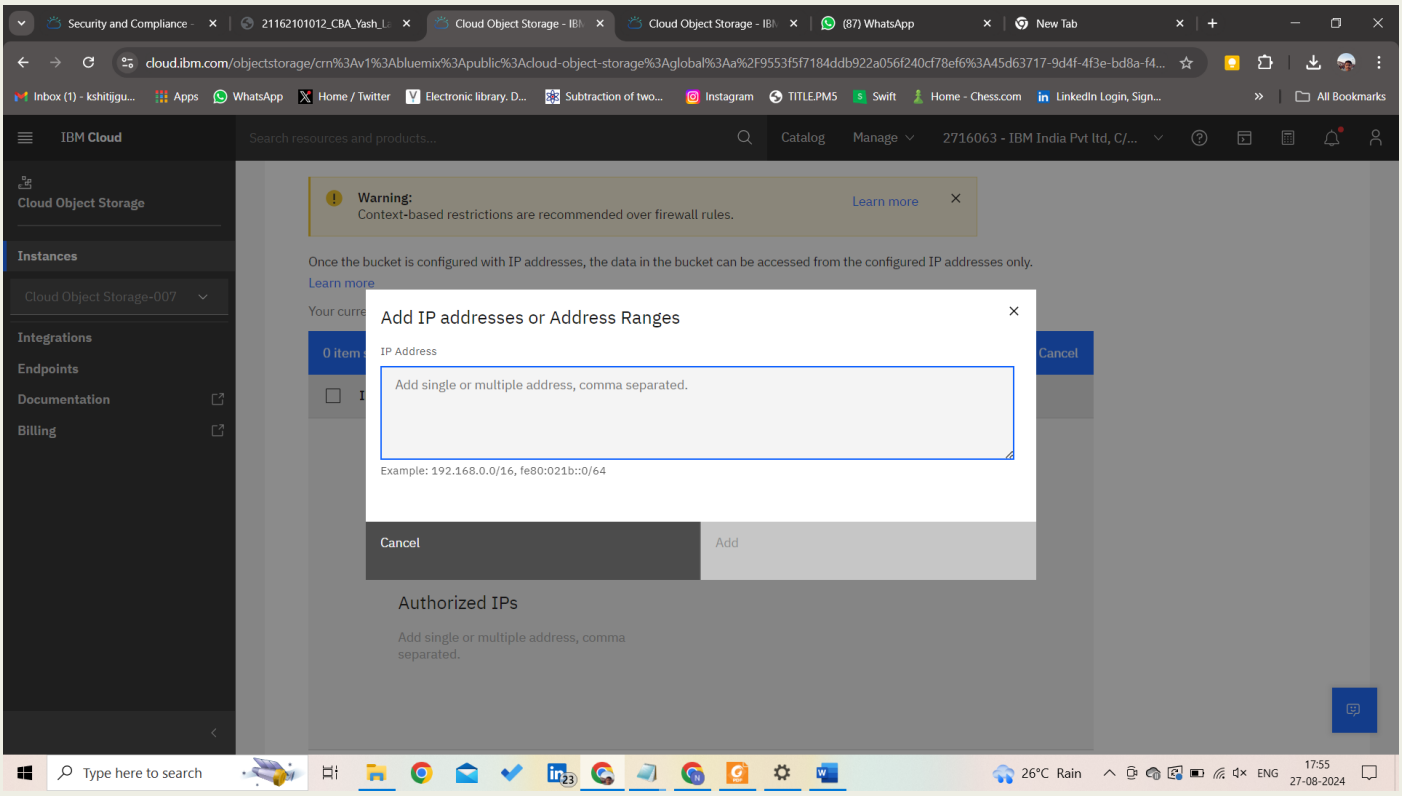


After scan completion, check services and security compliances, like here cloud storage bucket should contain firewall for additional security as mentioned in results



Now, it can be solved as mentioned, adding legacy firewall to bucket allowing specific IP addresses or the ranges respectively





Further solutions can be made as per provided steps and sufficient access to resource groups and respective resources