



#AutomATAhon2020

Welcome to #AutomATAhon2020

This is a timeboxed event. The servers will be up when the challenge starts and the servers will be brought down when the time ends. **The entire duration of the competition is 4 hours. The release two of the website will be given exactly after 3 hours of time has elapsed.** Please note that the focus this time is how you strategize your solution for test automation happening across multiple releases and how your reporting identifies new or fixed defects. **Please also note that the challenges are lengthy. Managing your time is very important. Please keep your own timers.**

Some quick rules and guidelines.

- You must automate as many challenges as possible within the time provided
- You must check in your code to your own git repository which should be hooked to your own Jenkins server.
- You must make github or gitlab project and add @cpsatcontent as a collaborator in your git repository.
- Please note that you have to run a Jenkins server on your local machine and link your git repository created with the first job in Jenkins. Idea is that when you push any changes,

the first job in Jenkins should get built and then the rest should get automatically executed one after the other.

- e. Any code changes beyond the time of the competition will disqualify you, so please ensure your latest code base is checked in the git repository before the server goes down.
- f. You must record the video of your running solution and provide a commentary around it. Please upload the video of the recording on google drive. Share it with us.
- g. Jenkins job should be numbered as per the challenge name like - Challenge1, Challenge2 etc. Your video recording should also show the solved challenges in the order that they are defined. Preferably recording the continuous running of Jobs one after the other.

Please note that you are free to use any technology or any tool or any framework with a simple rule that the code created for solving the challenge has to be moved to your own GIT repository. The timing details are stringent, as the servers will be brought down as per the scheduled end time.

Please note that any automation recordings that you have to do, has to be done before the servers go down.

Every challenge has multiple steps. One single job should have solution to all the steps. Please only create separate Jenkins (or equivalent tool) job for every challenge.

Good luck.

Have fun and happy learning

Thanks from the entire Jury Team for participating in this wonderful event.

JURY



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Important

For all the challenges mentioned below, please prepare a presentation (PPT) which should highlight your strategy for testing and test automation that you have used for each challenge and its subparts. If you have not attempted any challenge, please keep an empty slide for that challenge and mention that you have not attempted. You can also note down any defects found during testing in this presentation. Please name the strategy ppt as <yourname_strategy>.ppt and submit to atasupport@AgileTestingAlliance.org before the server goes down / or competition end time. **(Please note that this is a mandatory submission).**

General note – Popups on the website are transient. Popups may change or get removed in subsequent releases. Please plan accordingly.

AutomATAhon Release 0 server is

<https://automatahon20.cpsatexam.org>

We will be sharing the Release 1 server details in due course.

GTRSTAGING server to be used:

<https://agiletestingalliance-new-staging.dxp sites.net/>

Challenge 1

Challenge 1 has multiple parts, each have been allocated some marks.

Visit the following URL for challenge 1. Please ask the organizers in case this URL is giving some issues. The URL may change for a newer version of the site.

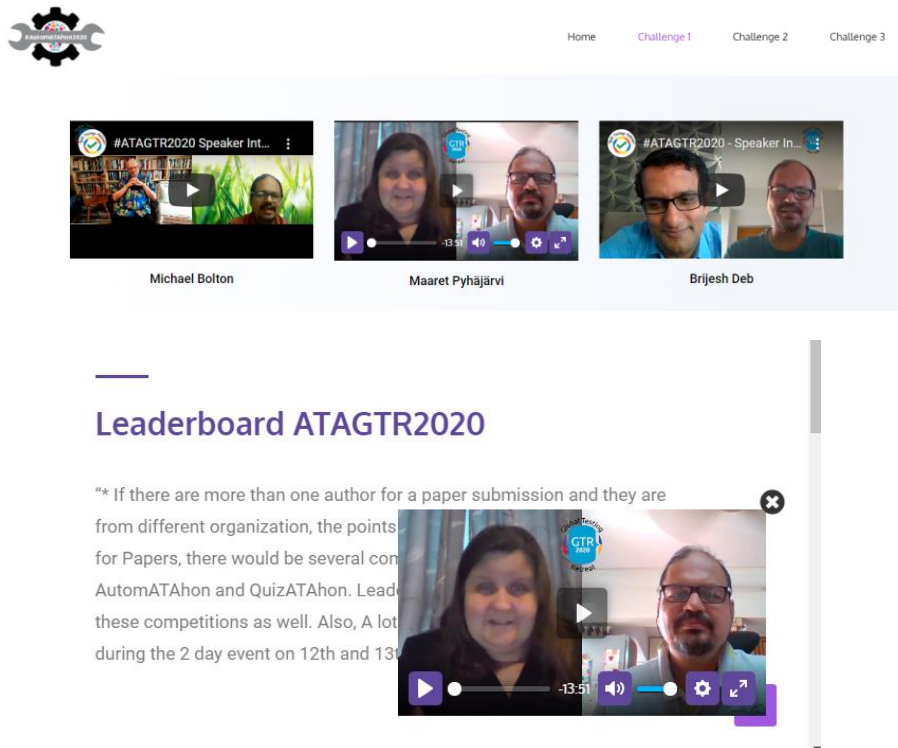
<https://automatahon20.cpsatexam.org/challenge1/>

1.1 : (5 marks) : The above page has three embedded videos on the top. When we scroll down, one of the videos moves with the scrolling. Please verify.

- a. Whether this video is among the three videos we see on top?
- b. Does it show up on the page even if we scroll down to the bottom

- c. Verify that these three videos are also there on the **GTRSTAGING** website respective speaker pages. Please use the GTRSTAGING SERVER mentioned earlier
- d. The above page is under continuous updates, in the subsequent release the videos may change, please plan to automate accordingly
- e. Any defects found during the testing should be noted separately. (Test reports should be generated by automation and should be submitted)
- f. Please prepare a ppt slide (part of your strategy on how did you approach this problem) – It need not be fancy, it can be just plain text.
- g. Execution results for release 1 and release 2 should be saved and shared in the ppt.

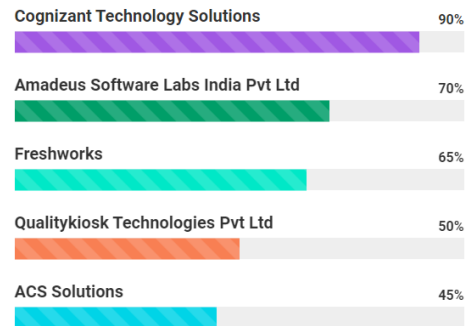
Please see the page screen shots below for reference.



1.2 (5 marks) : The page in challenge 1 has a % graph

- a. Please verify that the percentage values shown with respect to the organizations is matching the percentage of points of the total points from the GTRSTAGING website.
GTRSTAGING/leaderboard/_. E.g. Verify that Cognizant has 90% points of the total leaderboard points or not.
Please note that in the subsequent releases these values may change.

- b. Any defects found during the testing should be noted separately. (Test reports generated by automation)
- c. Please prepare a ppt slide (part of your strategy on how did you approach this problem) – It need not be fancy, it can be just plain text.
- d. Execution results for release 1 and release 2 should be saved and shared in the ppt. **Please see the page screen shots below for reference.**



1.3 (5 marks) : The page in challenge 1 has a counter. Please verify.

- a. Whether the counter values match the values from the **GTRSTAGING SERVER** . Please use the mentioned earlier home page values for the number of interactive sessions, labs, panel discussion etc...
- b. The above page is under continuous updates, in the subsequent release the counter may change, please plan to automate accordingly
- c. Any defects found during the testing should be noted separately. (Test reports generated by automation)
- d. Please prepare a ppt slide (part of your strategy on how did you approach this problem) – It need not be fancy, it can be just plain text.

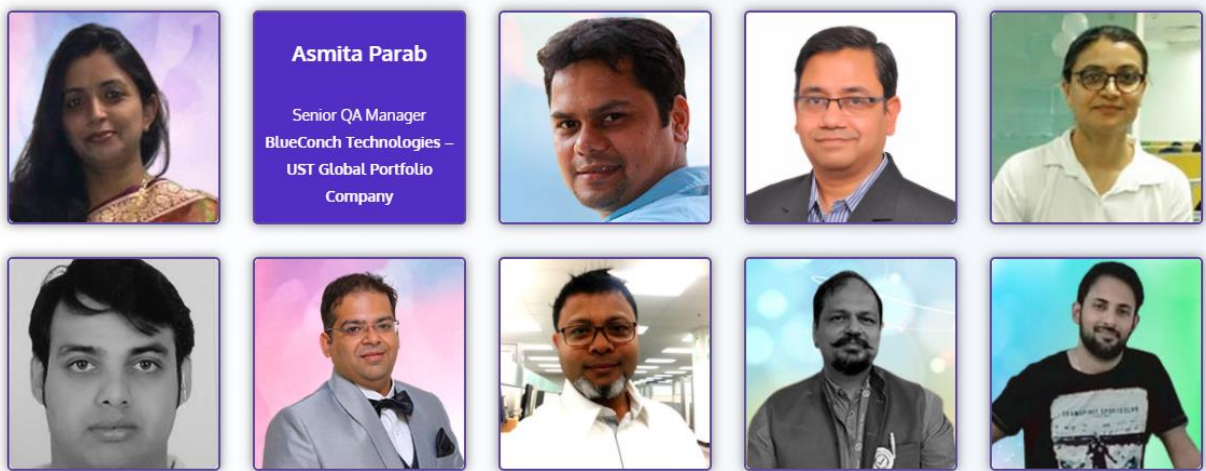
Execution results for release 1 and release 2 should be saved and shared in the ppt. **Please see the page screen shots below for reference.**



1.4 5 marks : The page in challenge1 has Jury members photos and names. Please verify

- That the Jury names and photos match that of the Jury members on the AutomATAhon page **on GTRSTAGING SERVER** test site : **GTRSTAGING /automatahon/**
Any discrepancies should be filed as defects.
- The above page is under continuous updates, in the subsequent release the Jury members can change, please plan to automate accordingly
- Any defects found during the testing should be noted separately. (Test reports generated by automation)
- Please prepare a ppt slide (part of your strategy on how did you approach this problem) – It need not be fancy, it can be just plain text.

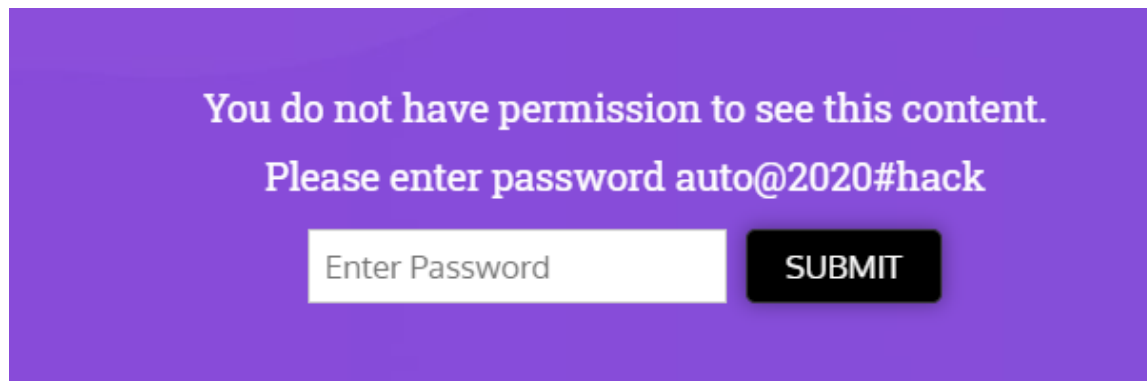
Execution results for release 1 and release 2 should be saved and shared in the ppt. **Please see the page screen shots below for reference.**



1.3 (5 marks) : The page in challenge1 has a password protected section. Please verify.

- Once you enter the password which is shown on the webpage, it will reveal the names of the speakers. You have to verify that these names and photos are matching from the photos present on the **GTRSTAGING** site.
- The above page is under continuous updates, in the subsequent release the speaker names and password values may change, please plan to automate accordingly
- Any defects found during the testing should be noted separately. (Test reports generated by automation)
- Please prepare a ppt slide (part of your strategy on how did you approach this problem) – It need not be fancy, it can be just plain text.

Execution results for release 1 and release 2 should be saved and shared in the ppt. **Please see the page screen shots below for reference.**



Challenge 2

Challenge 2 has multiple parts, each have been allocated some marks.

Visit the following URL for this challenge. Please ask the organizers in case this URL is giving some issues. The URL may change for a newer version of the site.

<https://automatahon20.cpsatexam.org/challenge2/>

2.1: (5 marks) : The above page shows a leaderboard table

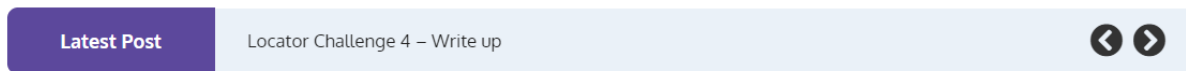
LEADERBOARD ATAGTR2020		
<div>Search</div>		
Sr. No	Organization	Points
1	Cognizant Technology Solutions	8,700
2	Amadeus Software Labs India Pvt Ltd	6,400
3	Freshworks	6,300
4	Qualitykiosk Technologies Pvt Ltd	4,700

Please verify

- Whether this is sorted out properly or not. (The highest points rows are coming to the top by default or not ?)
- Whether the point values and the respective names in the table are same as that of the **GTRSTAGING** page : <https://agiletestingalliance-new-staging.dxpsites.net/leaderboard/>
- If there are any discrepancies, they should all be listed as defects. (Test reports generated by automation)
- The above page is under continuous updates, in the subsequent release the table values may change, please plan to automate accordingly
- Any defects found during the testing should be noted separately
- Please prepare a ppt slide (part of your strategy on how did you approach this problem) – It need not be fancy, it can be just plain text.
- Execution results for release 1 and release 2 should be saved and shared in the ppt.

2.2: (5 marks) : The challenge 2 page shows a post section

Post

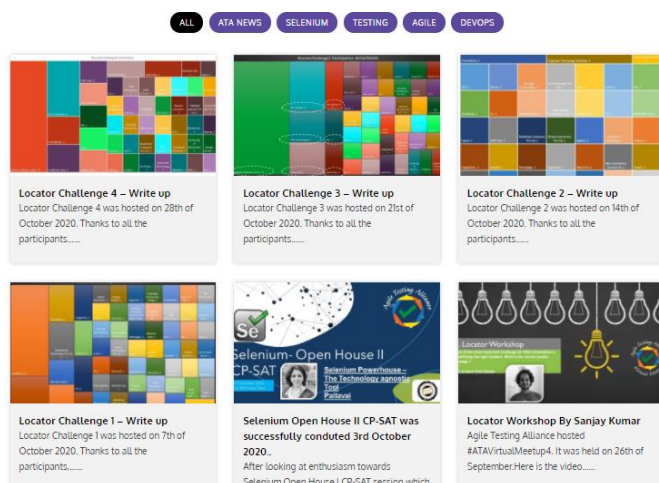


It has a slider which keeps showing the post headline from below.

Please verify

- Whether all the headlines from all the blog posts are correctly shown or not.
- Any discrepancies if there are any should be listed as defects. (Test reports generated by automation)
- The above page is under continuous updates, in the subsequent release the posts may change, please plan to automate accordingly
- Any defects found during the testing should be noted separately
- Please prepare a ppt slide (part of your strategy on how did you approach this problem) – It need not be fancy, it can be just plain text.
- Execution results for release 1 and release 2 should be saved and shared in the ppt.

2.3: (5 marks) : The challenge 2 page shows blog posts



All the blog posts are not shown at the same time.

Please verify

- a. That on every page load the count increases by 6
- b. There are categories for blog posts like Selenium, News, Testing, Agile and DevOps, you have to verify that the blogs that show up on clicking on respective categories are really related to the blog category or not. (this has to be done for all the blogs)
- c. Any discrepancies if there are any should be listed as defects. (Test reports generated by automation)
- d. The above page is under continuous updates, in the subsequent release the categories may change, please plan to automate accordingly
- e. Please prepare a ppt slide (part of your strategy on how did you approach this problem) – It need not be fancy, it can be just plain text.
- f. Execution results for release 1 and release 2 should be saved and shared in the ppt.

Challenge 3 contd.. below..

Challenge 3

Challenge 3 has a single part only.

<https://automatahon20.cpsatexam.org/challenge3/>

Visit the following URL for this challenge. Please ask the organizers in case this URL is giving some issues. The URL may change for a newer version of the site.

3.1: (10 marks) : The above page shows a leaderboard table

<https://automatahon20.cpsatexam.org/challenge3/>

The screenshot shows a registration form titled "FORM DETAILS" in purple. The form contains the following fields and controls:

- Name ***: Two text input boxes.
- Email ***: One text input box.
- Mobile No. ***: One text input box.
- Address ***: One text input box.
- Address Line 1**: One text input box.
- Address Line 2**: One text input box.
- City**: One text input box.
- State / Province / Region**: One text input box.
- Postal Code**: One text input box.
- Country**: A dropdown menu with "Afghanistan" selected.
- Date of Birth ***: One text input box.
- Are you currently working ***: Two radio buttons labeled "Yes" and "No".
- Upload Photo ***: A dashed box for photo upload with a camera icon.

Please test the above form. Prepare your own test scenarios and test cases to verify this form. All

- a. If there are any discrepancies, they should all be listed as defects.

- b. The above page is under continuous updates, in the subsequent release the defects if any may be fixed, please plan to automate accordingly
- g. Any defects found during the testing should be noted separately. (Test reports generated by automation)
- c. Please prepare a ppt slide (part of your strategy on how did you approach this problem) – It need not be fancy, it can be just plain text.
- d. Execution results for release 1 and release 2 should be saved and shared in the ppt.

Challenge 4

Challenge 4 is all about Multi browser testing.

This challenge has weightage depending on how many sections you have automated from the above challenge. Depending on how many sections you have automated you will be allocated two marks for achieving below. Max marks = 14. (as there are total 7 sections in the above challenge)

All the tests from Challenge 1, Challenge 2 and Challenge 3 above, please run them in parallel on three browsers, firefox, Edge and Chrome. The grid can be locally setup or remotely setup, such that the Jenkins job can be executed automatically when the earlier jobs are executed.

The total time taken for running the tests should be part of the report. In case of a tie, the lesser execution times will break the tie.

Challenge 5 – 15 marks

Challenge 5 is all about Mobile testing. You have to keep this challenge in the Jenkins job as well.

This challenge is 15 marks.

You have to choose any one of the Challenge from 1, 2, or 3 and automate the sub parts on simulated mobile devices of your choice. The test should run on atleast 2 different simulators.

Challenge 6 – 10 marks

Challenge 6 is all about Accessibility Testing. You have to keep this challenge in the Jenkins job as well.

This challenge is 10 marks.

You have to test the accessibility of the challenge site.

<https://automatahon20.cpsatexam.org/>

Like all other challenges this one should be a Jenkins job and should run automatically when there is any change happening in the git repository.

Challenge 7 – 10 marks

Challenge 7 is all about Continuous Test reporting.

This challenge is 10 marks. (+ bonus marks 5)

As there are multiple jobs in Jenkins which are executed one after the other, multiple times. Please design a reporting system which can showcase job executions, fail, pass with drill down on the tests pass fail. Trend analysis. Any other reporting. You may use Grafana, Kibana or any other continuous reporting tools of your choice. Any automated inferences / analytics which can help the stakeholders from subsequent executions will carry bonus marks of 5.

Challenge 8 – 10 marks

Challenge 8 is all about API Testing. You have to keep this challenge in the Jenkins job as well.

API Endpoints

Server IP address is as below. If this is not working please ask the organizers for an alternative IP address

<http://34.68.51.180:4000>

Replace localhost with the server IP address in the below API documentation

GET: get list of companies

<http://localhost:4000/api/v1/companies>

POST: create company

<http://localhost:4000/api/v1/companies/{name}>

PUT: update company

<http://localhost:4000/api/v1/companies/{name}>

DELETE: remove company

<http://localhost:4000/api/v1/companies/{name}>

JSON Data Structure to be used in Post and PUT

```
{  
  "name": "companyName",  
  "tel": "012-345-6789",  
  "email": "gtr@automatahon2020.org"  
}
```

Here are the tests/verifications to be performed.

- a. Create 5 companies using a data sheet (file) having values for name, telephone and email address and Verify that all the 5 companies are created properly or not. Match the JSON output for data type and data structure for all the companies that have been created.
- b. Delete all the companies created in step 1
- c. Verify that all the companies created in step 1 are deleted
- d. Try deleting the company with a different name than the one created and verify that the deletion is not happening

- e. Verify that you can create and update company details

Challenge 9 – 10 marks.

Challenge 9 is all about concurrency test for the API Server.

You have to design a concurrency test for the Rest API for user registration. Please do not use the <http://34.68.51.180:4000> server. **This test has to be performed on a separate server.** The end points will be the same. **Please request the organizers for the IP address whenever you want to perform such a test.** You will have to keep the organizers in loop when you are performing the tests.

Concurrency tests is as below

1. Measure the response time for 5 concurrent requests for adding a new company, then for 10 concurrent requests for adding a new company, then for 15, 20 and 25. Plot the server response time for such concurrency.
2. Repeat the steps for deleting the companies. 5, 10,15,20,25 concurrent one. Use the same id's generated in step 1 for deleting.
3. If the server crashes, you have to let us know under what load did it crash. If the server does not crash, predict based on the results for tests 1 and 2 on what probable load the servers might crash.

Thanks for participating in #AutomATAhon2020

Hope you had fun.

Please do note that you have to record the test automation solution in action (all challenges getting executed) using any mechanism (your phone recording the action on your laptop) or using a meeting software like zoom or equivalent. You have to also submit your strategy presentation in the stipulated time.