

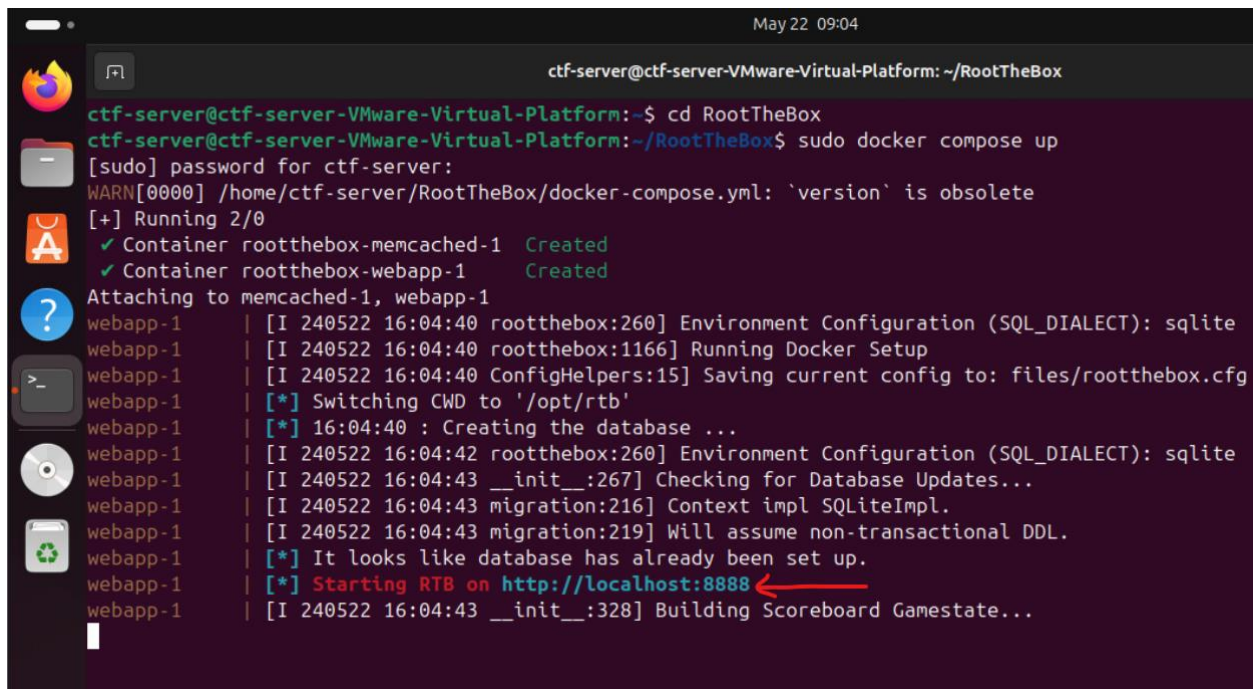
How to add cybersecurity CTF challenges in RootTheBox

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Date: 5/22/2024

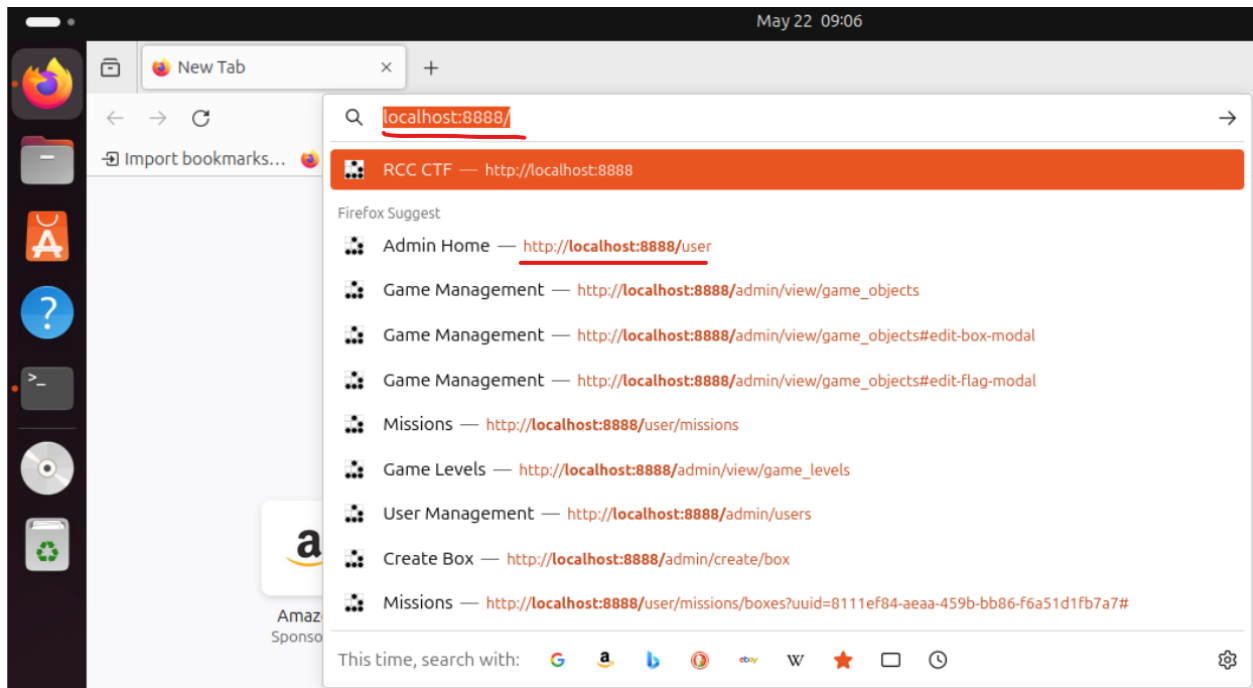
Step 1: Open a terminal and change directory to the RootTheBox directory. Then get docker compose up and running and it will start hosting the RTB CTF. Notice at the bottom it states starting RTB on <http://localhost:8888>.

Command: **cd RootTheBox , sudo docker compose up**

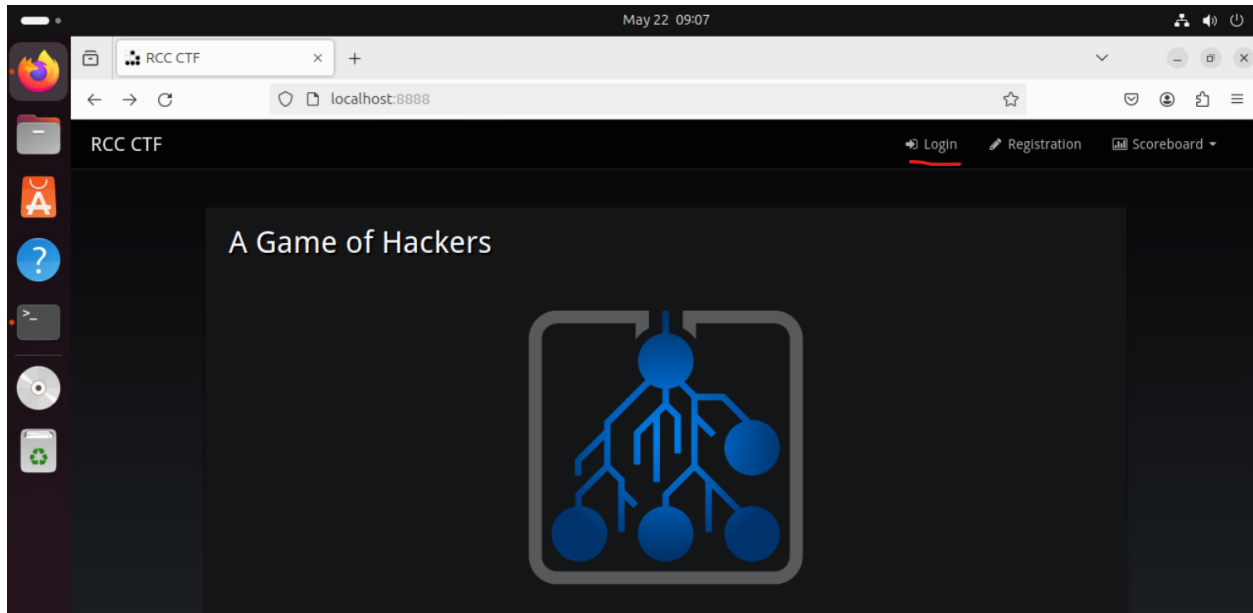


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ctf-server@ctf-server-VMware-Virtual-Platform: ~/RootTheBox
ctf-server@ctf-server-VMware-Virtual-Platform:~$ cd RootTheBox
ctf-server@ctf-server-VMware-Virtual-Platform:~/RootTheBox$ sudo docker compose up
[sudo] password for ctf-server:
WARN[0000] /home/ctf-server/RootTheBox/docker-compose.yml: 'version' is obsolete
[+] Running 2/0
  ✓ Container rootthebox-memcached-1 Created
  ✓ Container rootthebox-webapp-1 Created
Attaching to memcached-1, webapp-1
webapp-1 | [I 240522 16:04:40 rootthebox:260] Environment Configuration (SQL_DIALECT): sqlite
webapp-1 | [I 240522 16:04:40 rootthebox:1166] Running Docker Setup
webapp-1 | [I 240522 16:04:40 ConfigHelpers:15] Saving current config to: files/rootthebox.cfg
webapp-1 | [*] Switching CWD to '/opt/rtb'
webapp-1 | [*] 16:04:40 : Creating the database ...
webapp-1 | [I 240522 16:04:42 rootthebox:260] Environment Configuration (SQL_DIALECT): sqlite
webapp-1 | [I 240522 16:04:43 __init__:267] Checking for Database Updates...
webapp-1 | [I 240522 16:04:43 migration:216] Context impl SQLiteImpl.
webapp-1 | [I 240522 16:04:43 migration:219] Will assume non-transactional DDL.
webapp-1 | [*] It looks like database has already been set up.
webapp-1 | [*] Starting RTB on http://localhost:8888
webapp-1 | [I 240522 16:04:43 __init__:328] Building Scoreboard Gamestate...
```

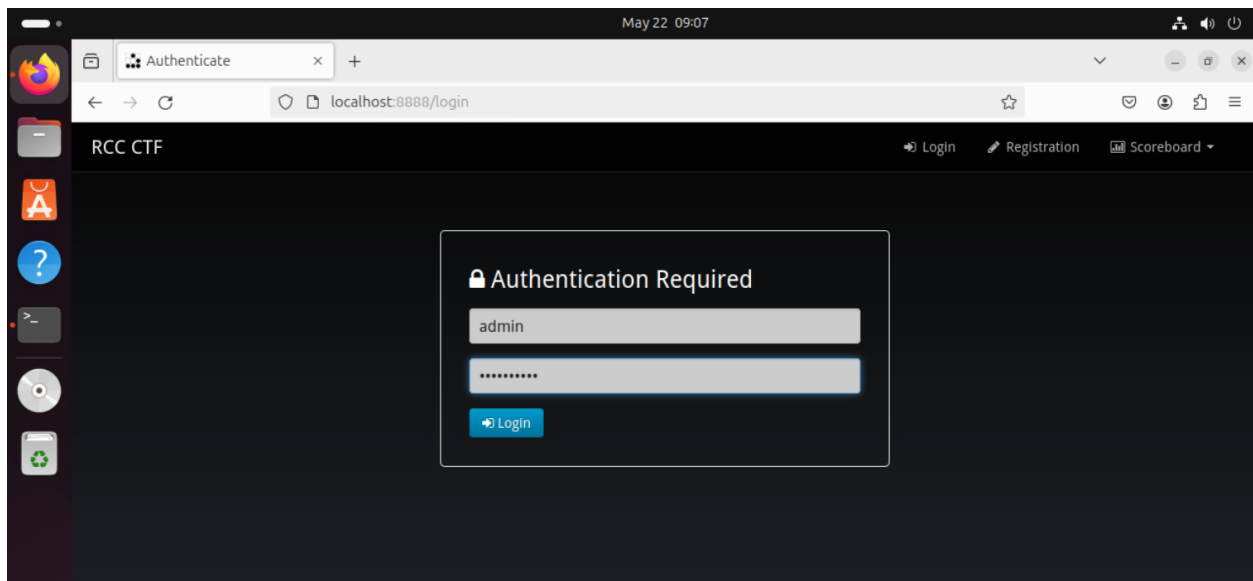
Step 2: Next open a web browser and type in <http://localhost:8888> and press enter.



Step 3: It will take you to the RootTheBox login page, next click on login.

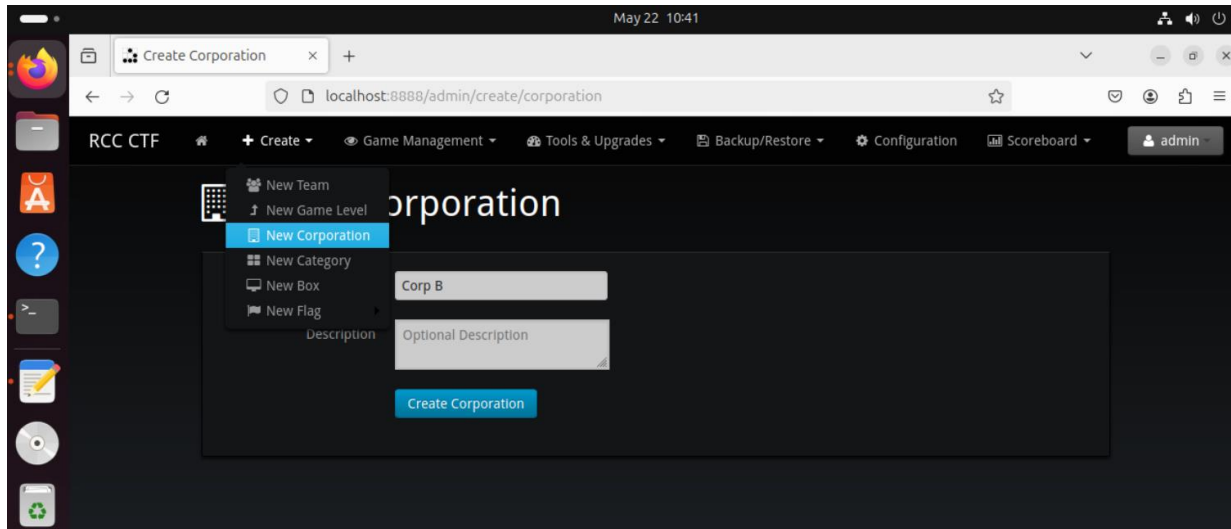


Step 4: Login as admin using your credentials, as of this writing the username is admin, and the password is rootthebox.

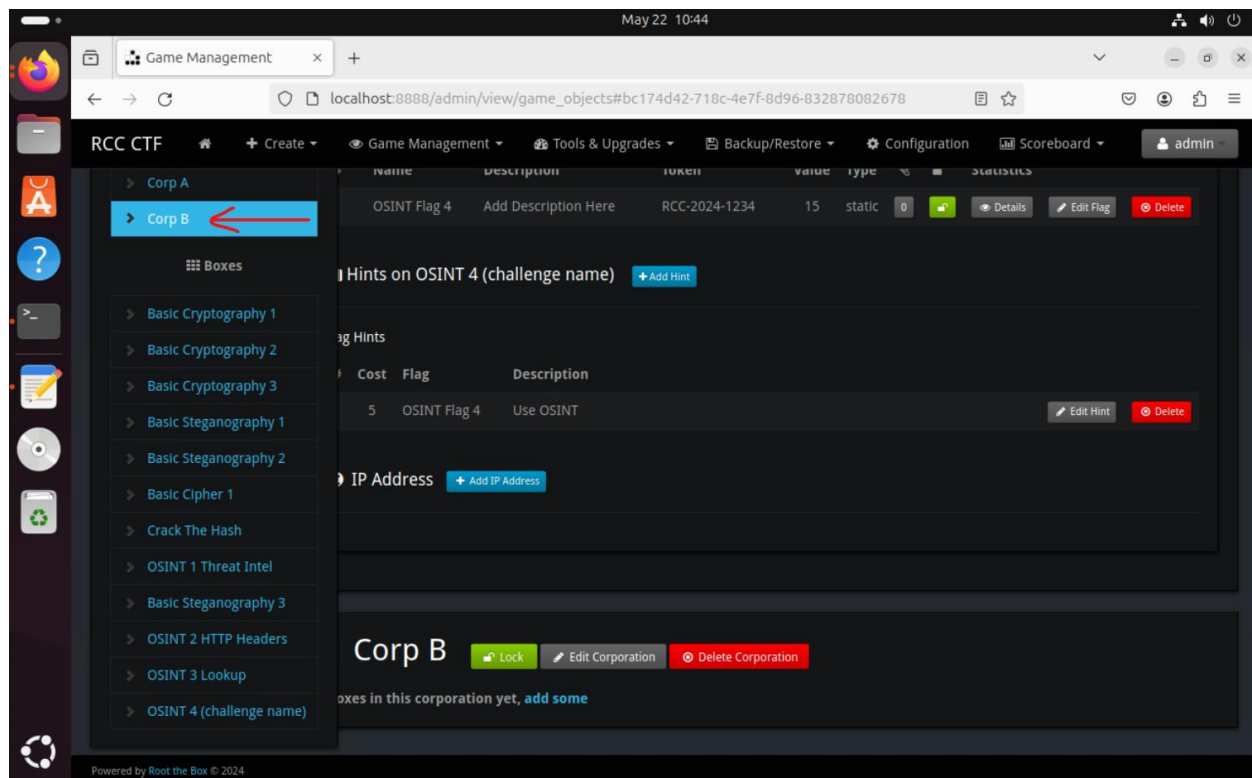


Step 5: To create a new cybersecurity CTF challenges first you must create a corporation. Simply click on the upper left corner and select New Corporation.

Note: Here is the topology of how to create a CS CTF in RTB. 1st Create a corporation > 2nd Create a Box > 3rd Create a Flag then you have successfully created a CS CTF challenge in RTB.

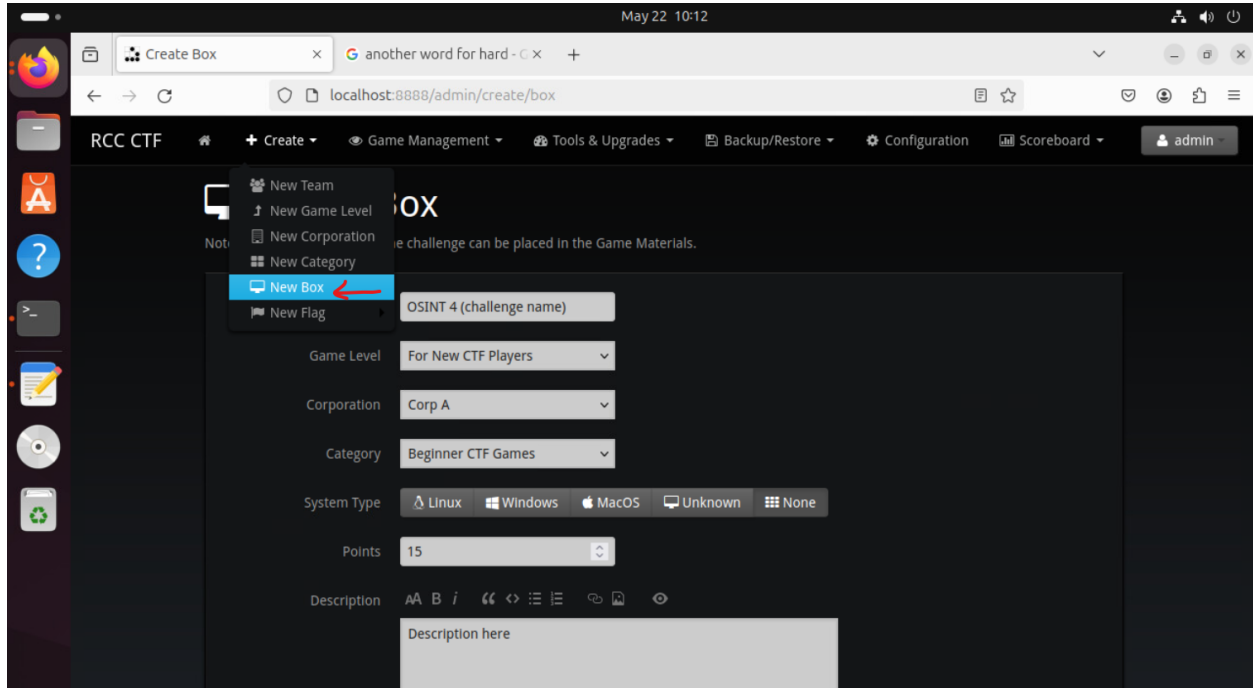


Step 6: You can verify by looking at the upper left corner of Game management > Flags / Boxes / Corp. We can see that Corp B has been created.

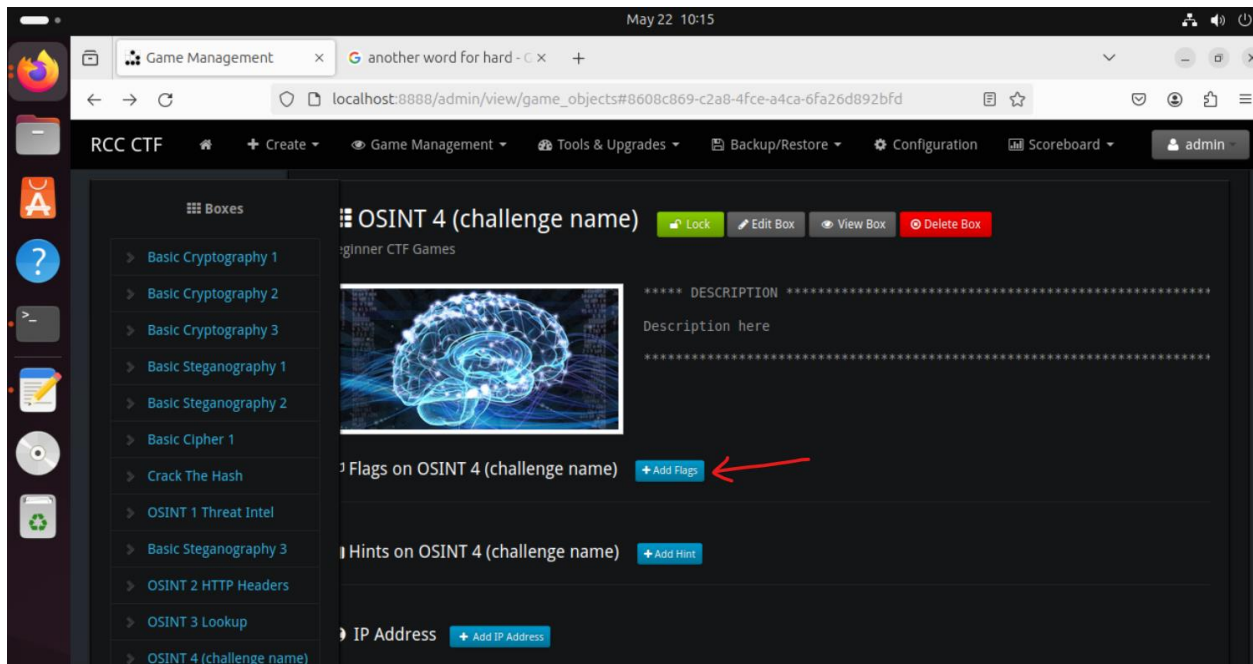


Step 7: Next you need to create a new box, in the upper left corner click on `Create > New Box`. Then simply select a new box after that it will take you to

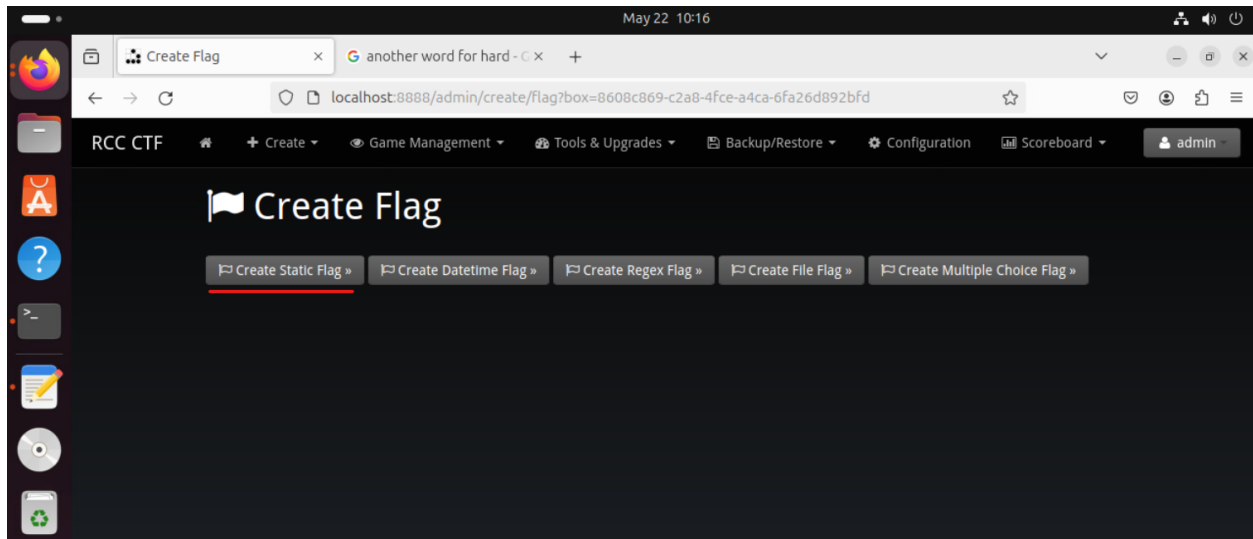
this page and from there you can add the name of the challenge and corporation, points, etc.



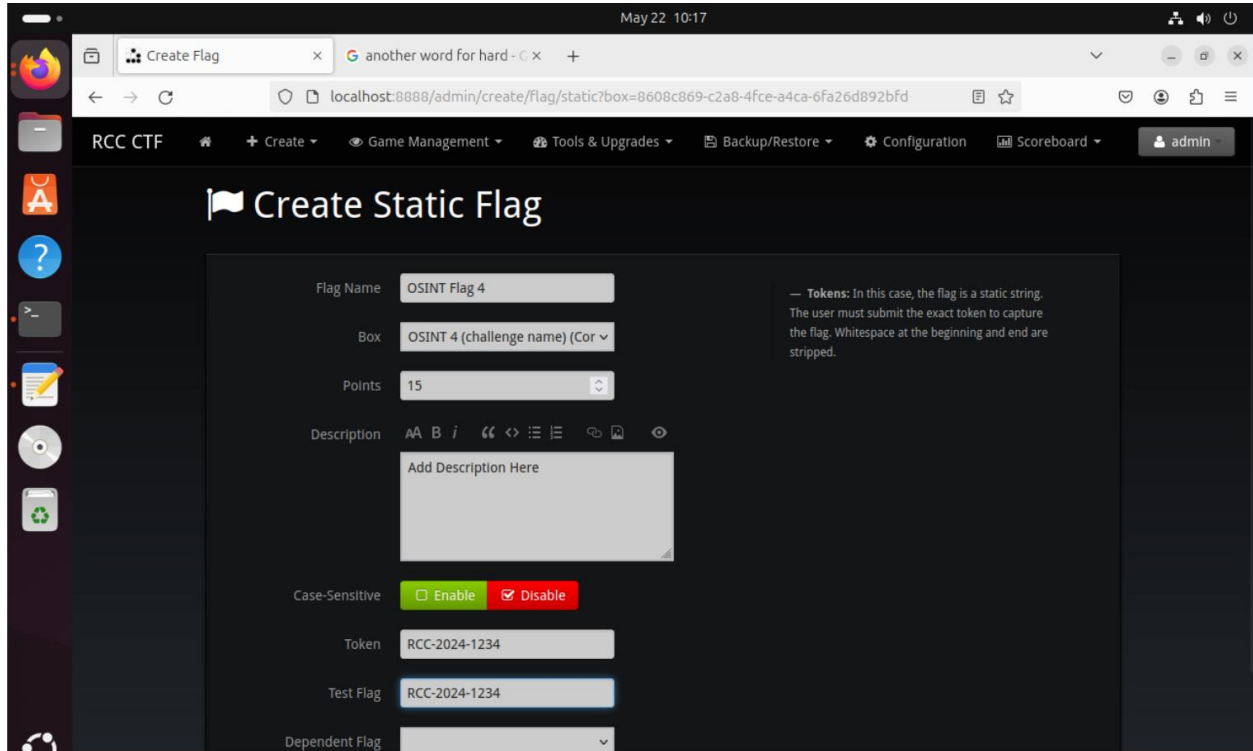
Step 8: From here you can add flags, hints, and IP addresses if necessary.



Step 9: In creating a new flag dialog box, we can see that there are multiple types of flags we can choose from. But for now, we will be using the static flag, which is a simple static input box, where the players can enter the flag.



Step 10: From here we can create the flag name, box, points, description, and tokens. Tokens mean the actual flag and you can enable or disable case sensitive.

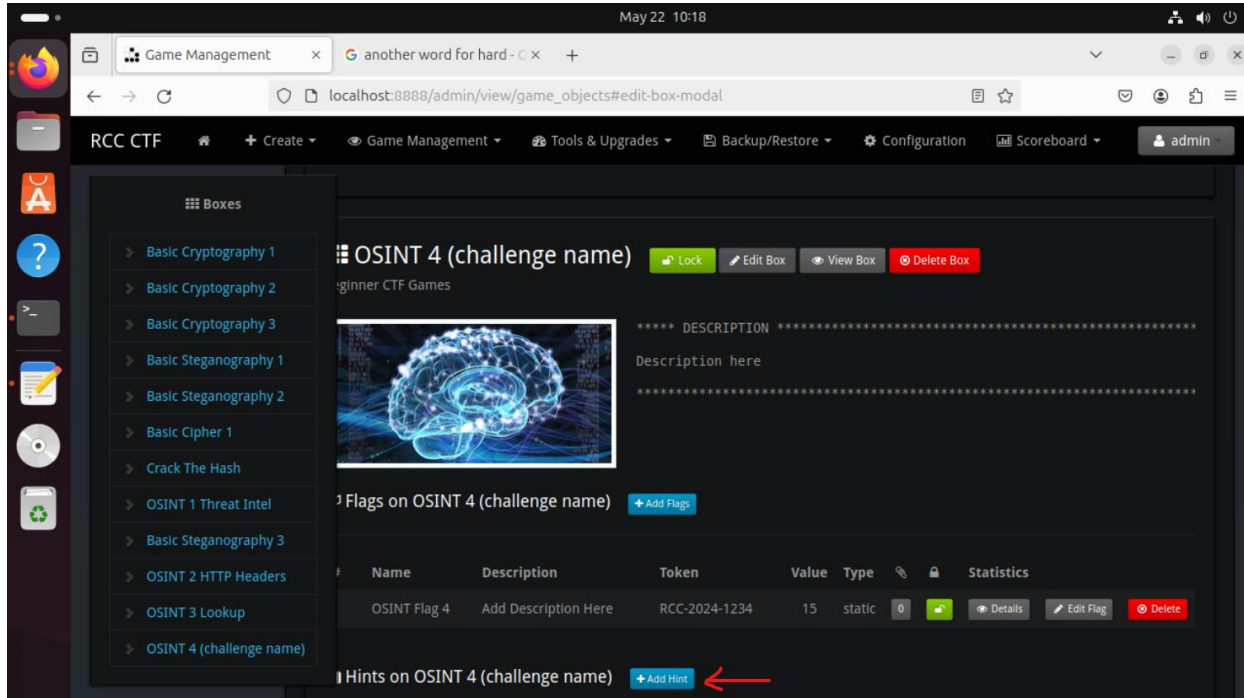


The screenshot shows a web browser window with the address bar displaying `localhost:8888/admin/create/flag/static?box=8608c869-c2a8-4fce-a4ca-6fa26d892bfd`. The page title is "Create Static Flag". The interface includes a sidebar with icons for various functions and a main content area with the following fields:

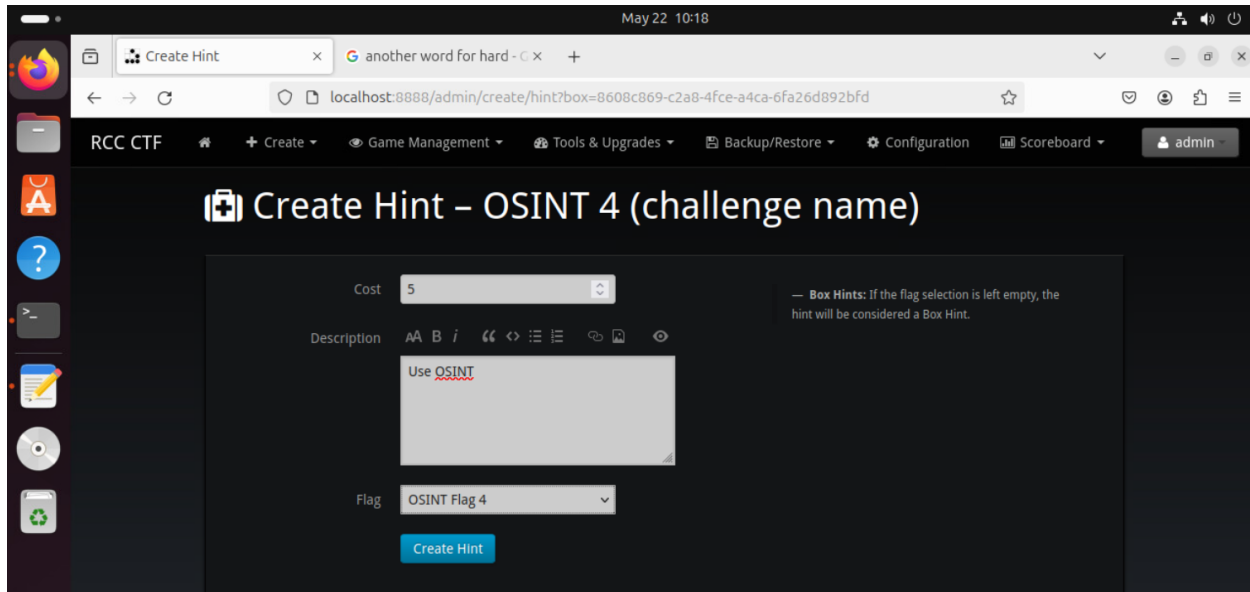
- Flag Name:** OSINT Flag 4
- Box:** OSINT 4 (challenge name) (Cor v)
- Points:** 15
- Description:** A rich text editor with the placeholder text "Add Description Here".
- Case-Sensitive:** Two buttons, "Enable" (green) and "Disable" (red), with "Disable" selected.
- Token:** RCC-2024-1234
- Test Flag:** RCC-2024-1234
- Dependent Flag:** A dropdown menu.

A note on the right side of the form states: "— Tokens: In this case, the flag is a static string. The user must submit the exact token to capture the flag. Whitespace at the beginning and end are stripped."

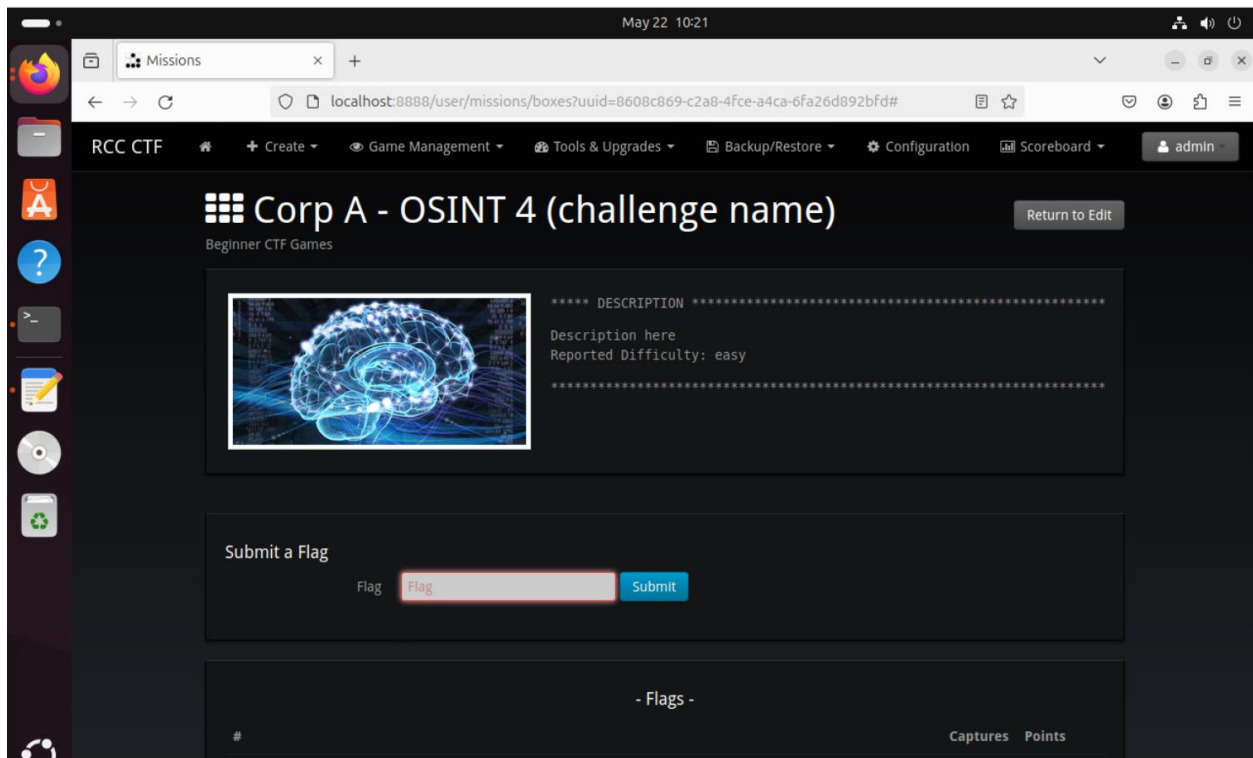
Step 11: Next, we are going to add a hint, simply click on add hint.



Step 12: You can specify how much point deduction it will cost them if they use the hints. You can add a description of the hint, and make sure to click on the drop-down arrow which will display which current flag this hint is for.

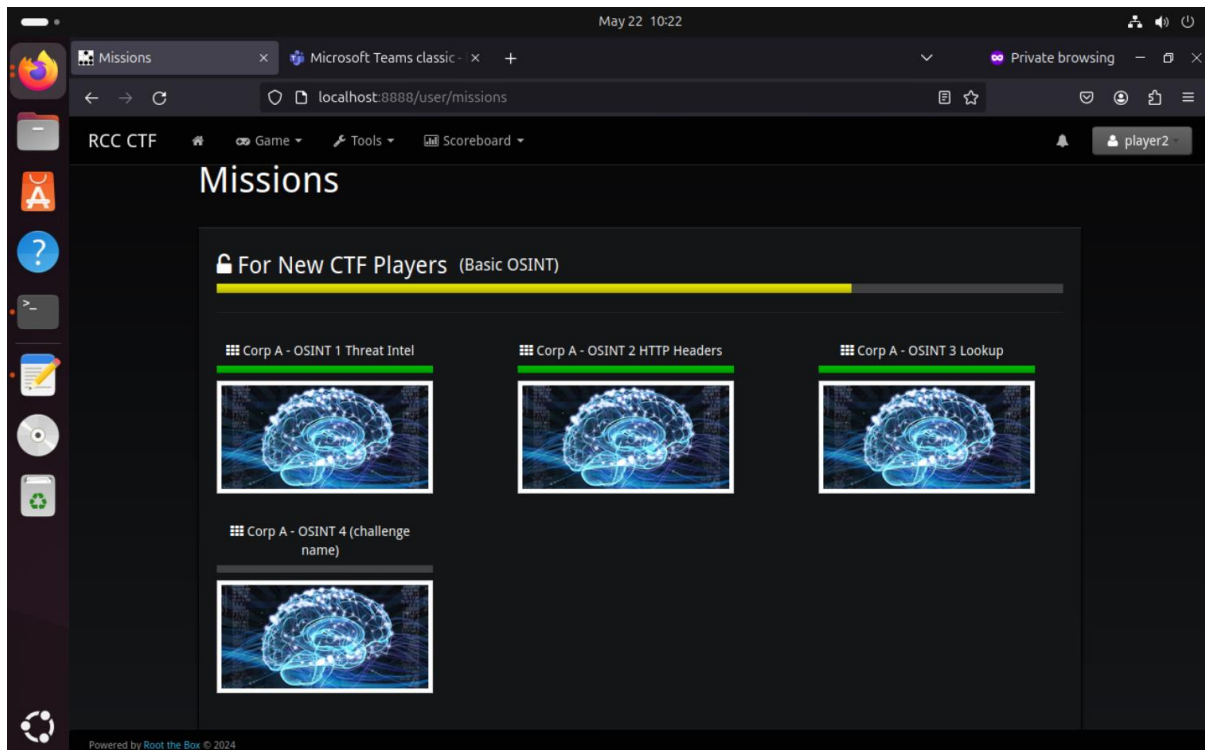


Step 13: If you click **view** from the which can be seen in step 10. You can view the challenge as a player, and if you want to return to editing simply click on the **Return to edit** button located at the upper right corner.



Step 14: This is from a player's perspective/view. As you can see the challenges here for the new CTF players.

Note: The purpose of this documentation is to give you a simple understanding of how to create new CTF challenges in RTB.



End of Documentation