

1) How to configure Intel Vtune on ANTYA?

⇒ The user must launch all profiling jobs as an interactive job. Therefore to run interactive jobs in ANTYA, type in command.

```
[user@login1 ~]$ qsub -l -X -q serialq -l select=1:ncpus=4,walltime=8:00:00
```

⇒ The interactive GUI application of Intel VTune Profiler can be run directly after loading the required modules on compute node.

- Load Intel modules

```
[user@cn232 pbs.295599.ANTYA.x8z]$ module load oneapi/modulefiles/vtune/2021.2.0
```

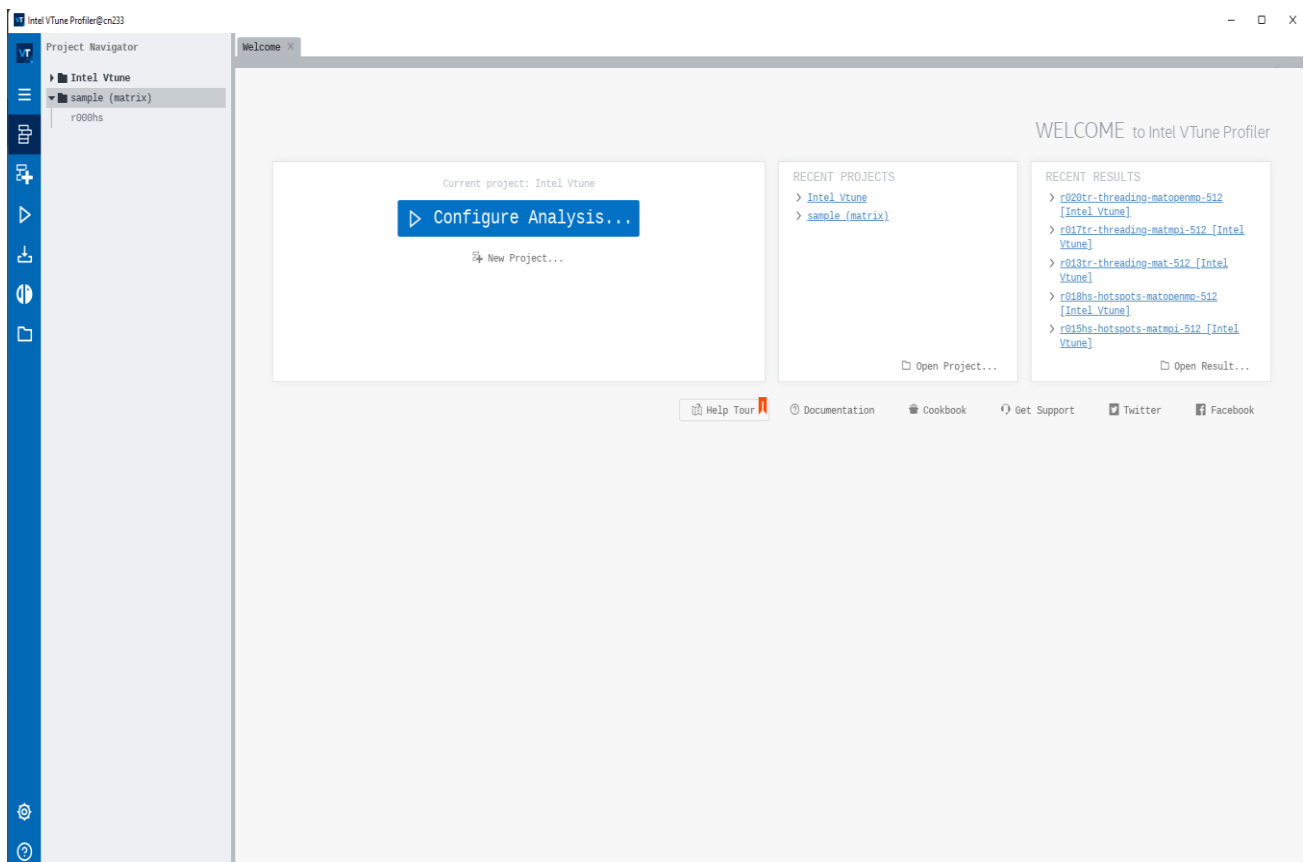
- Change working directory to user home directory

```
[user@cn232 pbs.295599.ANTYA.x8z]$ cd /home/user
```

- Launch Intel Vtune Profiler

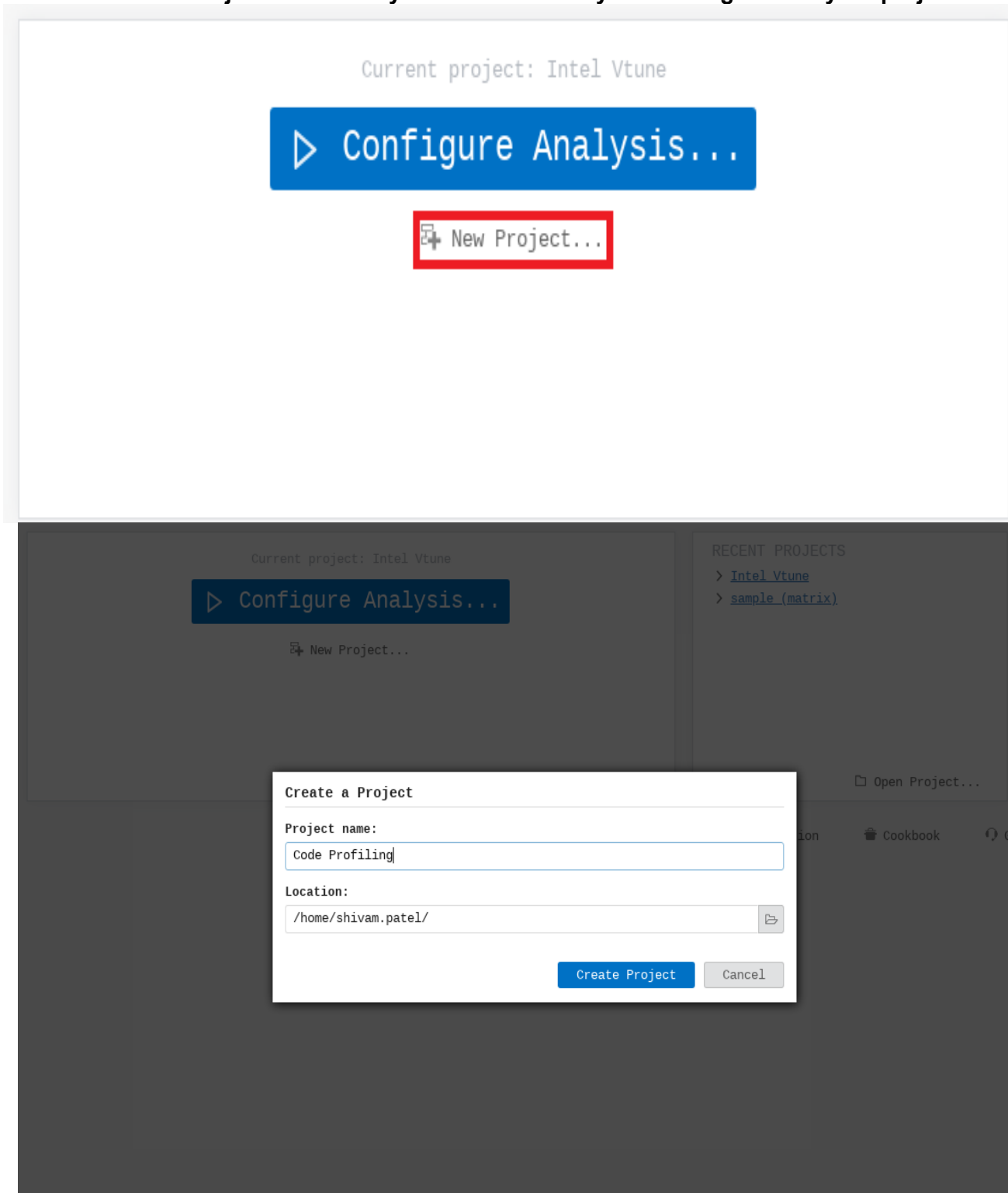
```
[user@cn232 ~]$ vtune-gui
```

This will open a VTune GUI where you can set a project and launch a profile run

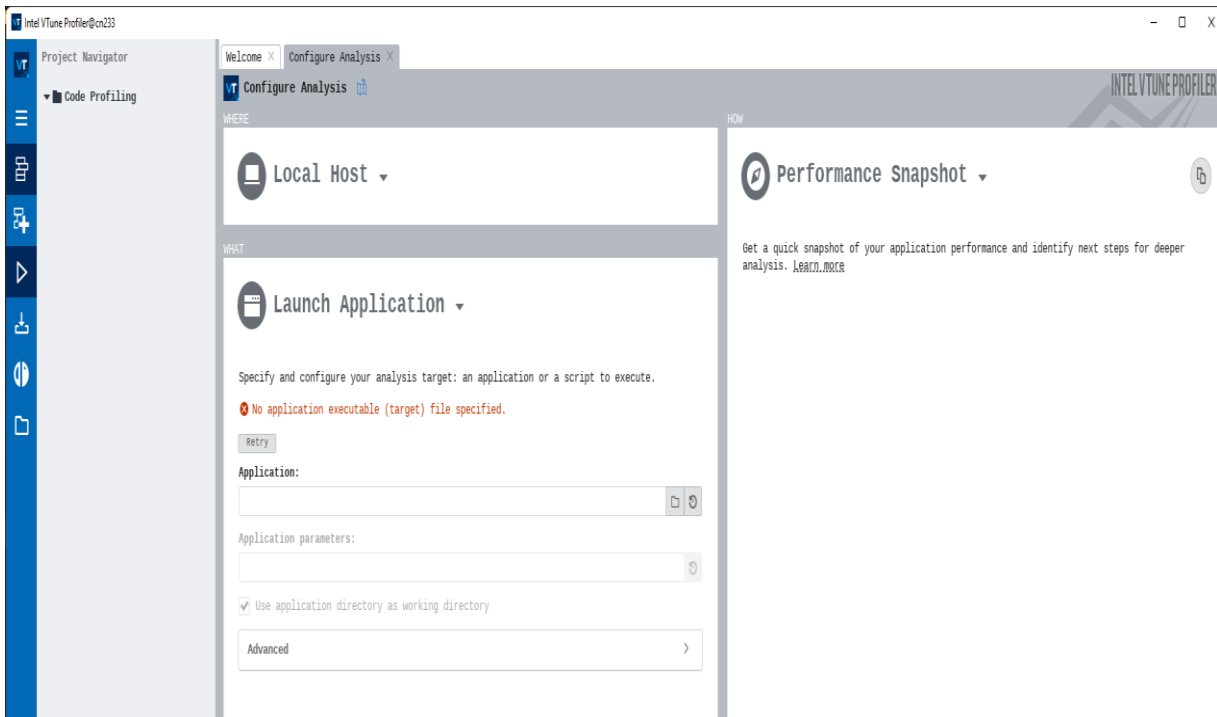


2) How to Profile codes using VTune?

⇒ Create a new Project and select your home directory as working directory for project.



⇒ A New window will be opened in newly created project environment.



⇒ To select the code that needs to be profiled, click on file icon present in launch application tab. Note: Object files/Scripts/Executable can only be profiled.

Launch Application ▾

Specify and configure your analysis target: an application or a script to execute.

✗ No application executable (target) file specified.

Retry

Application:

Application parameters:

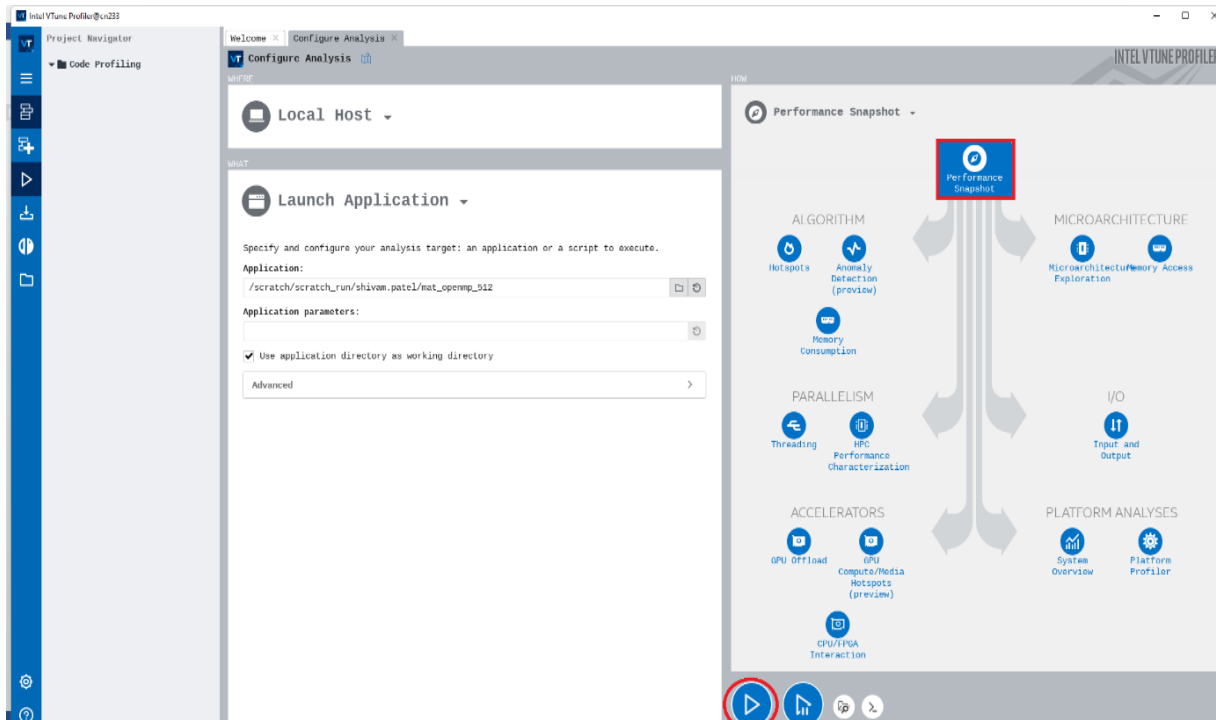
☒ Use application directory as working directory

Advanced

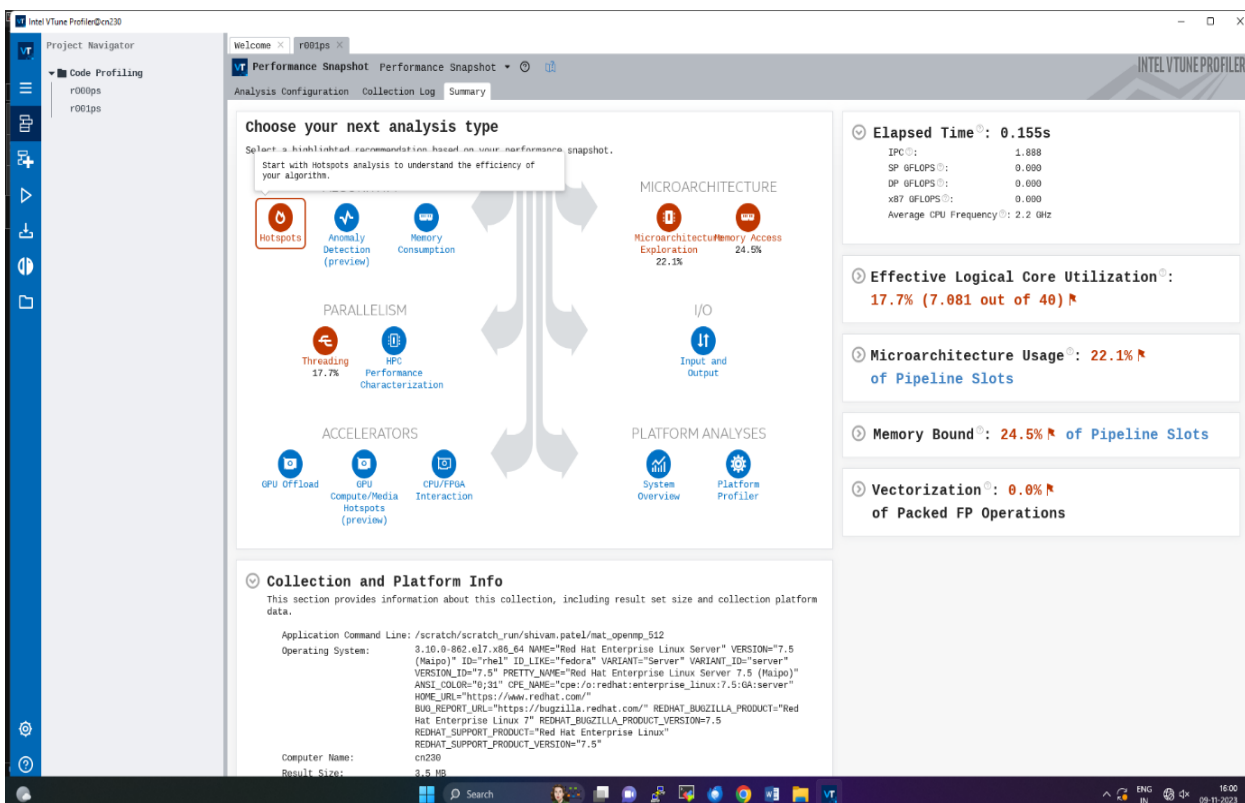


⇒ A File picker will be opened. Select the code that needs to be profiled.

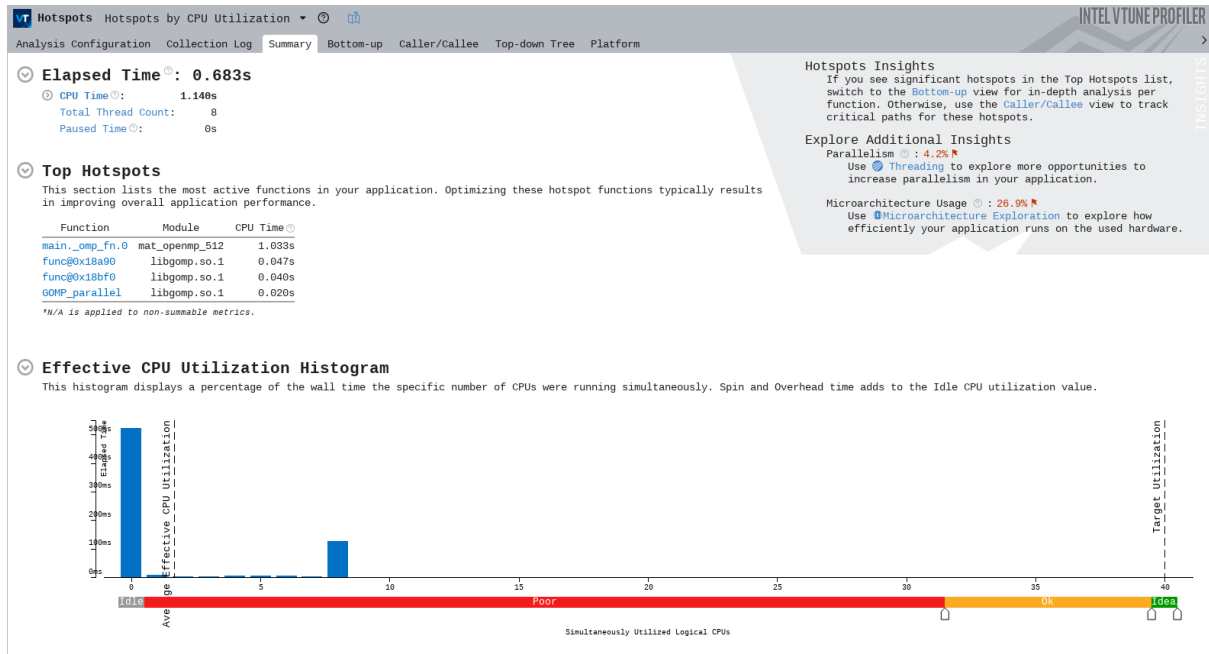
- ⇒ From **HOW** pane, click the **...** Browse button and select **Performance Snapshot** and Click **Run Analysis** button.



- ⇒ **Code Profiling** will be started and results will be displayed on the screen.
- ⇒ As shown in image below, the icons in red color indicates low performance. Therefore click on red icon and run the analysis again.



⇒ Below are the New Analysis results after profiling the code for Hotspot and Threading analysis type



⇒ For detail analysis results, VTune provides various options as shown in image below. Select anyone of them and detail analysis will be shown.

