

Hotspot analysis on Intel VTune using shell script

version 1

Below is the sample command to run hotspot analysis of an application with Intel VTune:

```
vtune --collect=hotspot --result-dir=./report -- ./mmult_serial
```

Write a shell script to run any executable file with Intel VTune. The shell script should:

- load the required modules for running VTune (ask the user the name of the VTune module and load it using the module load command)
- ask the user for the absolute path to the project directory (it can be any name)
- ask the user for the absolute path to the executable file

Based on the input given by the user, the script should create and run the VTune command and generate the report.

Also, Check if the executable and project directory path exists or not on the system.

Open the generated report using the vtune-gui command.

version 2

Give the user option to compare hotspot results of two applications.

```
mmult_without_opt.c
```

```
mmult_with_opt.c
```

In the end, the script should compare the hotspot result of both these files i.e. it should show an increase/decrease in time of the hotspots.

Commands:

```
mmult_without_opt.c
```

```
gcc -o mmult_without_opt mmult_without_opt.c
```

```
vtune --collect=hotspot --result-dir=./report1 -- ./mmult_without_opt
```

```
mmult_with_opt.c
```

```
gcc -o mmult_with_opt mmult_with_opt.c
```

```
vtune --collect=hotspot --result-dir=./report2 -- ./mmult_with_opt
```

```
vtune -report hotspots -result-dir report1 -column="CPU Time:Self"  
--- output
```

```
vtune -report hotspots -result-dir report2 -column="CPU Time:Self"  
--- output
```

```
vtune -report hotspots -r report2 -r report3
```

```
vtune -report hotspots -r report2 -r report3 --column="Result 1:CPU Time:Self"  
--column="Result 2:CPU Time:Self"
```