

# Performance profiling using gprof

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## Introduction

gprof allows us to measure how much percentage of time is spent in different functions. This way, we can focus on optimizing the functions which take more time OR which are called more number of times

## Adding instrumentation

```
$ gcc -o application -pg main.c
```

The option -pg adds instrumentation code which keeps measuring time spent in different functions

## Running the application

We run the application as normal procedure

```
$ ./application
```

The run produces a file called **gmon.out** containing measurement of performance data

## Generating performance report

```
$ gprof ./application gmon.out
```

# References

- 1) `man gprof`
- 2) [https://www.tutorialspoint.com/unix\\_commands/gprof.htm](https://www.tutorialspoint.com/unix_commands/gprof.htm)