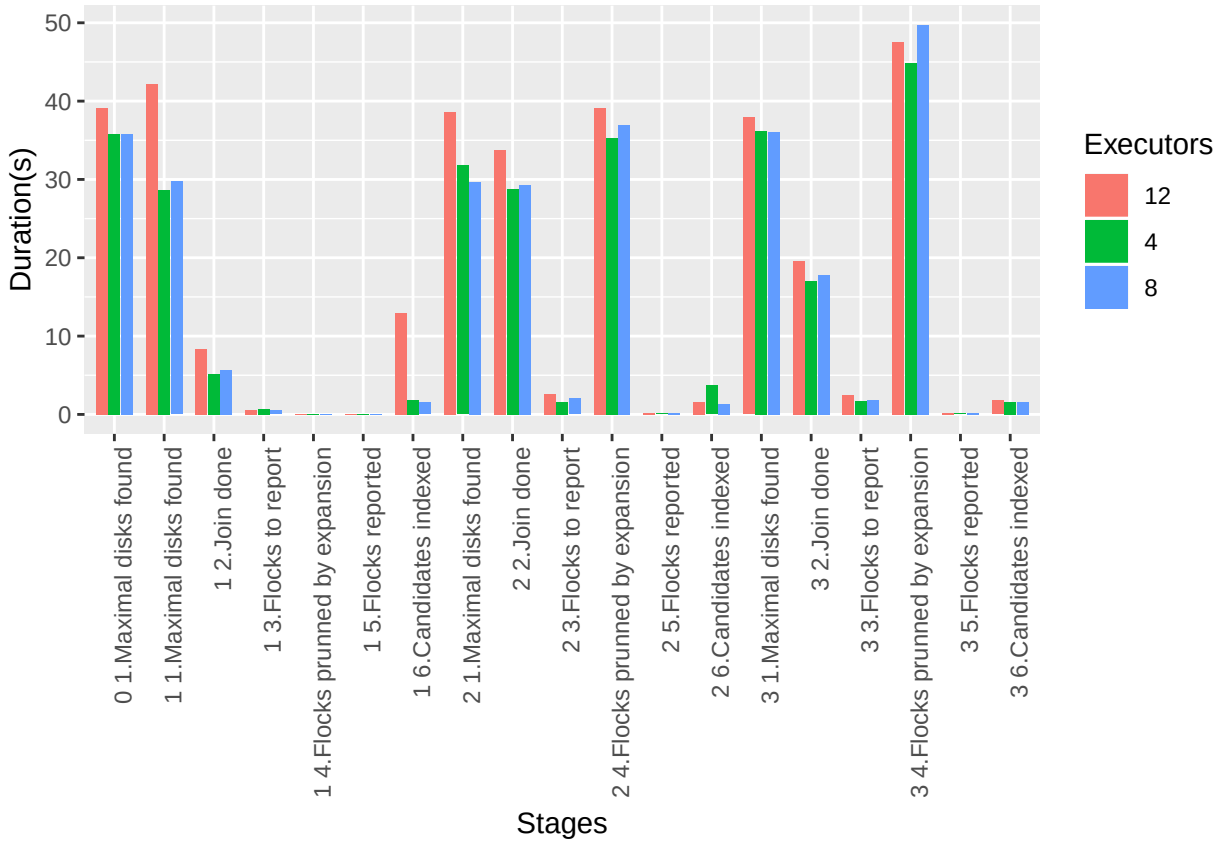
R Notebook

```
stages = rbind(stagesE1, stagesE2, stagesE3) %>% select(Interval, Stage, Executors, Duration) %>%
  mutate(Stage = paste(str_pad(Interval,2,"left"), Stage)) %>%
  select(Stage, Executors, Duration) %>%
  group_by(Stage, Executors) %>% summarise(Duration = mean(Duration))

head(stages)
```

```
## # A tibble: 6 x 3
## # Groups:   Stage [2]
##   Stage                       Executors Duration
##   <chr>                       <chr>        <dbl>
## 1 " 0 1.Maximal disks found" 12            39.2
## 2 " 0 1.Maximal disks found" 4             35.8
## 3 " 0 1.Maximal disks found" 8             35.8
## 4 " 1 1.Maximal disks found" 12            42.2
## 5 " 1 1.Maximal disks found" 4             28.6
## 6 " 1 1.Maximal disks found" 8             29.7
```

```
p = ggplot(data = stages, aes(x = Stage, y = Duration, fill = Executors)) +
  geom_bar(stat="identity", position=position_dodge(width = 0.75), width = 0.7) +
  theme(axis.text.x = element_text(angle = 90, hjust = 1)) +
  labs(x="Stages", y="Duration(s)")
plot(p)
```



```
stages = customExecutionTime(nohup)

data = stages %>% select(Executors, Epsilon, Duration) %>%
  group_by(Executors, Epsilon) %>% summarise(Duration = mean(Duration))
head(data)
```

```
## # A tibble: 3 x 3
## # Groups:   Executors [3]
##   Executors Epsilon Duration
##   <chr>     <chr>      <dbl>
## 1 12        110.0       329.
## 2 4         110.0       275.
## 3 8         110.0       280.
```