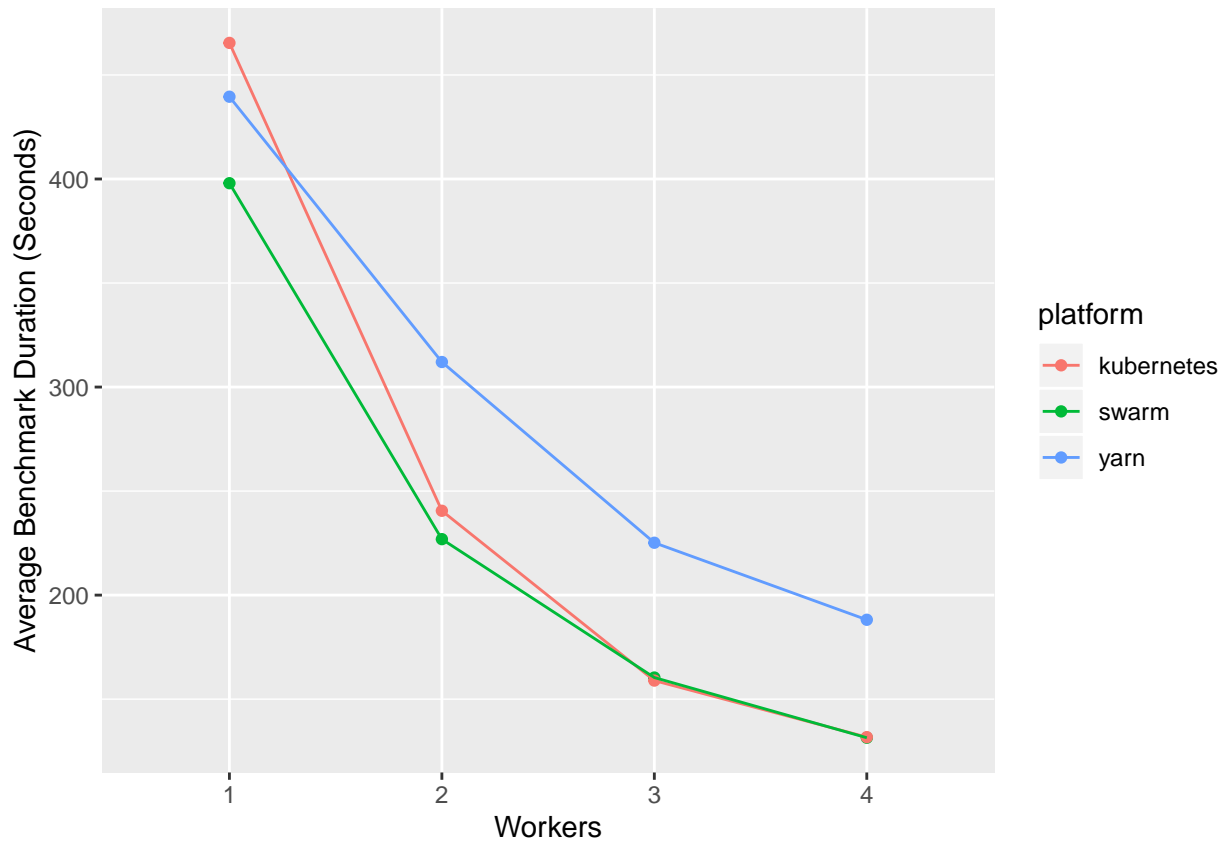
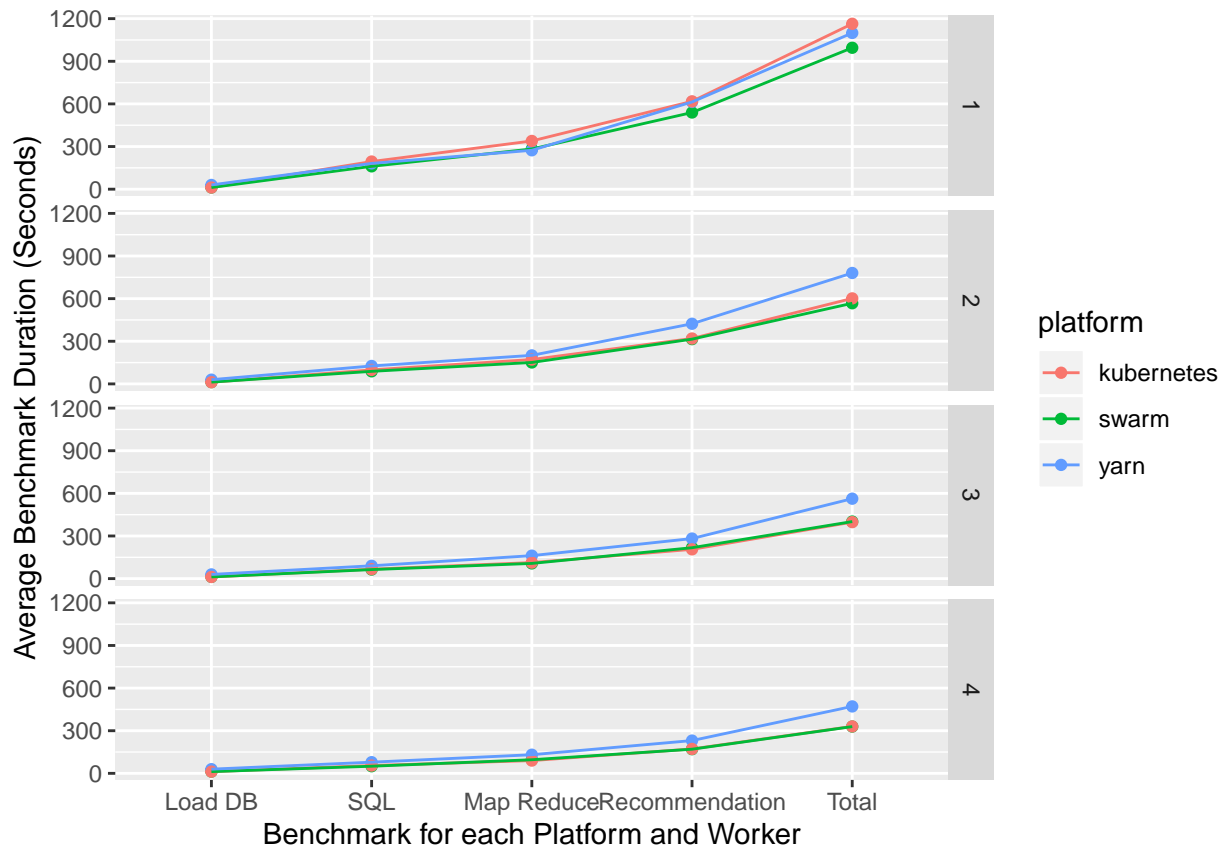


Movielens-Benchmark

```
##  
## Attaching package: 'scales'  
## The following object is masked from 'package:readr':  
##  
##   col_factor
```





##	benchmark	workers	platform	seconds
## 1:	Load DB	4	swarm	12.25567
## 2:	Map Reduce	4	swarm	95.70716
## 3:	SQL	4	swarm	50.21393
## 4:	Recommendation	4	swarm	169.93276
## 5:	Total	4	swarm	329.11979
## 6:	Load DB	3	swarm	12.20022
## 7:	Map Reduce	3	swarm	107.04547
## 8:	SQL	3	swarm	63.62954
## 9:	Recommendation	3	swarm	217.54641
## 10:	Total	3	swarm	401.48919
## 11:	Load DB	2	swarm	12.69490
## 12:	Map Reduce	2	swarm	150.82358
## 13:	SQL	2	swarm	88.39606
## 14:	Recommendation	2	swarm	314.96520
## 15:	Total	2	swarm	567.55656
## 16:	Load DB	1	swarm	11.82159
## 17:	Map Reduce	1	swarm	282.68797
## 18:	SQL	1	swarm	160.68488
## 19:	Recommendation	1	swarm	539.52198
## 20:	Total	1	swarm	995.17755
## 21:	Load DB	4	yarn	29.50626
## 22:	Map Reduce	4	yarn	131.13515
## 23:	SQL	4	yarn	78.54926
## 24:	Recommendation	4	yarn	230.63663
## 25:	Total	4	yarn	470.92755
## 26:	Load DB	3	yarn	29.50049

## 27:	Map Reduce	3	yarn	161.52952
## 28:	SQL	3	yarn	90.25676
## 29:	Recommendation	3	yarn	281.91491
## 30:	Total	3	yarn	562.63788
## 31:	Load DB	2	yarn	29.61790
## 32:	Map Reduce	2	yarn	200.68003
## 33:	SQL	2	yarn	126.12383
## 34:	Recommendation	2	yarn	423.20715
## 35:	Total	2	yarn	780.52208
## 36:	Load DB	1	yarn	29.71973
## 37:	Map Reduce	1	yarn	273.65743
## 38:	SQL	1	yarn	181.36671
## 39:	Recommendation	1	yarn	613.63998
## 40:	Total	1	yarn	1099.30066
## 41:	Load DB	4	kubernetes	11.82417
## 42:	Map Reduce	4	kubernetes	89.84577
## 43:	SQL	4	kubernetes	54.93498
## 44:	Recommendation	4	kubernetes	171.68982
## 45:	Total	4	kubernetes	330.41531
## 46:	Load DB	3	kubernetes	11.51045
## 47:	Map Reduce	3	kubernetes	112.91050
## 48:	SQL	3	kubernetes	66.47634
## 49:	Recommendation	3	kubernetes	206.05889
## 50:	Total	3	kubernetes	397.62123
## 51:	Load DB	2	kubernetes	11.53275
## 52:	Map Reduce	2	kubernetes	171.44677
## 53:	SQL	2	kubernetes	98.48996
## 54:	Recommendation	2	kubernetes	319.51492
## 55:	Total	2	kubernetes	601.64584
## 56:	Load DB	1	kubernetes	11.51451
## 57:	Map Reduce	1	kubernetes	339.25553
## 58:	SQL	1	kubernetes	194.36294
## 59:	Recommendation	1	kubernetes	618.03098
## 60:	Total	1	kubernetes	1163.86291
##	benchmark workers platform			seconds