#### Time estimation

- Throughout career you'll be asked to estimate how many hours specific tasks will take (coding, documentation, migration, etc)
- Need good estimation skills (underestimates can lead to lost potential revenue, overestimates can lead to lost opportunities)
- Estimation skills improve with practice: start estimating how long tasks will take you, and track how long they really take, then look for trends where you over/under-estimate

### Estimation techniques

- A few broadly used approaches to help in estimation
- By analogy: compare to past tasks, and adjust based on relative size/difficulty (X took me 5 hours, this looks twice as long and 50% more difficult, so estimate 15 hours)
- By available resources: only \$X available in budget so that's what I'll estimate
- To win: estimate based on trying to undercut competition
- By formula (see next slide)

# Estimation by formula

 Searches will bring up a variety of different formula options for estimating required time, basically categorizing size, skills, and complexity using different factors then plug in your values

#### Reviewing your estimates later

- Need to track your time spent on the task if you want to check your estimates
- Many organizations require you to track time spent, so it can be billed to appropriate part of project/budget
- Different companies go with different granularity, e.g. track in 15 minute intervals, track in 30 minute intervals, etc

# Sample time sheet/file

- Have columns for date, start time, end time, interruption time, project, and task description
- e.g. might say started at 1pm, finished at 4pm, had 45 minutes of interruptions (cuts down on complexity of tracking)
- If you can practice this over the next couple of years, you'll be better prepared when you first have to do it "for real"