



“Hell, there are no rules here. We’re trying to accomplish something.”

*Thomas Edison*

“The bubble sort would be the wrong way to go.”

*Barack Obama*

“We do go out of our way to recruit people who are a little different.”

*Larry Page*

## Chances:

- Google hires about 1 out of every 130 people who apply for a position. (Not good odds.)
- Great employees == great company

## Desired Personality

- At what age did you start using a computer?
  - Earlier the better
- Did you ever build a computer?
  - Yes, (see: [Computer Power User](#))
- Belief in open, collaborative work
  - ! (Lone wolf programmers)
  - Extroverted engineers

## Candidate survey:

- Indicate your working style on a scale of 1..5, where 1= work alone and 5 = part of a team
  - 2,3 = Lone wolfs & 3,4 = collaborators
- Have you ever been in a coding contest?
  - Most successful google employees have not.

## Package

- 40-50 page dossier on each google applicant
- Contents: biography, SAT, HS & college grades, resume, work samples, reference reports, web info: LinkedIn, blogs, postings, Facebook, Tweets, YouTube....

## Common majority traits:

- GPA: 3.7 (3.0 for nontechnical jobs)
- School: Stanford, Caltech, MIT, Ivy league
- Triple 800s on SATs, or a PhD.

## Weightings

- Equal weightings, (GPA same as others).
- Sex: ratio of men & women almost 50%
- Looking for people who have overcome adversity.
  - First family college grad
  - Worked through college
- Ivy league used for prior vetting

Applicants have 5 interviews:

- Interviews performed by peers, NOT people Ops/HR
- Disparate interviewers
  - Personality, gender, age, ethnicity, background
- Performed by 5 different interviewers in 1 day
  - One is a relaxed lunch interview

You and the Interviewer

- Social networking data
  - Assume employer will check: set pages to private or clean them up
- Ask who your interviewers will be?
  - Google them

## Work sampling

- Engineer: code an app, public relations: write press release, lawyer: write a contract (sell a person's soul to the devil)

## Interview Grading

- Scale 1..4:
  1. Don't hire, 2. Negative, but maybe,
  3. Positive, but maybe not, 4. Definitely hire
- Interview reports go into applicant's package
- Applicant's receiving only one 4 score perform better than applicant receiving all 3's.

All hires signed off by Larry Page.

## Interview questions

- Ok to question the interviewer
- First define and clarify the question
- Assumptions should be checked
- Decompose and describe your strategy for each part
- Always verbalize your thinking. Interviewers are interested in your thought processes. Silence is uncomfortable.
- Listen to the interviewer. They may give a hint, but don't expect them to collaborate.
- Expect the interviewer to be poker faced and be ready if they call time on a question.

## Classification

- Logic Puzzles: analytical reasoning
- Insight Questions: leap of intuition
- Lateral Thinking Puzzles: verbal ambiguity
- Divergent Thinking: creativity
- Fermi Questions: back of the envelope estimations
- Algorithms: efficiency



## Fermi:

- How much would you charge to wash all the windows in Seattle?
- How many phones are on the Va Tech campus?

## Lateral Thinking:

- A man pushed his car to a hotel and lost his entire fortune?
- There are three women in bathing suits. The happy woman is crying and the other two are sad. Why?

## Logic:

- You get on a ski lift at the bottom of a mountain & ride it to the top. How many chairs do you pass?
- In a dark room you're handed a deck of cards with  $N$  cards faceup and the rest facedown. You can't see the cards. How would you split the cards into 2 piles, with the same number of faceup cards in each pile?

## Divergent Thinking:

- Explain a database to an 8 year old in 3 sentences or less.
- It is difficult to remember what you read, especially after many years. How would you address this problem?

## Insight:

- You have a chessboard with the opposite diagonal squares removed. Can you cover the remaining 62 squares with 31 dominos?

## Algorithm

- What's the fastest way to sort a million 32 bit integers?