DEVELOPING COST ENGINEERS

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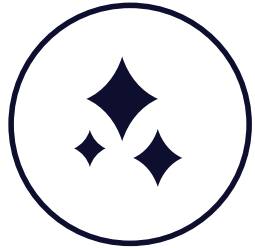
Overview

- Background

- Where to Begin?

- Making it Fun

- Designing Your Session

- Moving On

- Early Career
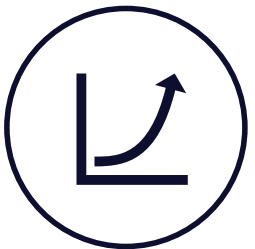
- Is there an End?

Background – Company Overview

Established in 2020

80 employees, growing to 95 by the end of 2024

Sirius Analysis Inc incorporated in Virginia, USA September 2024

Turnover **more than trebled** in the past 2 years

Background

- Maths Degree

- Over 15 years experience as a cost consultant in MOD

- STEM Ambassador

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Where to Begin?

CDAL

Model

Tools

Value for Money

RDEL

Cost

Budget

Tax

Quantity

Options

Quotes

Estimate

Labour

Planning

Risks

Rates

Inflation

Uncertainty

Forecast

CDEL

Data

Profile

Process

Price

CADMID

Assumptions

Currency

Where to Begin?

- Target Audience
  - How old?
  - How many?
  - Why are they there?

- Time
  - How much do you have?

- Basic Concepts
  - Budget
  - Choices
  - Restrictions
  - Data Gathering

Making it Fun

Imagine you're 9 years old. Would you rather...

A.

```
for i in people.data.users:
    response = client.api.statuses.user_timeline.get(screen_name=i.scre
    print 'Got', len(response.data), 'tweets from', i.screen_name
    if len(response.data) != 0:
        ltdate = response.data[0]['created_at']
        ltdate2 = datetime.strptime(ltdate,'%a %b %d %H:%M:%S +0000 %Y'
        today = datetime.now()
        howlong = (today-ltdate2).days
        if howlong < daywindow:
            print i.screen_name, 'has tweeted in the past' , daywindow,
            totaltweets += len(response.data)
            for j in response.data:
                if j.entities.urls:
                    for k in j.entities.urls:
                        newurl = k['expanded_url']
                        urlset.add((newurl, j.user.screen_name))
        else:
            print i.screen_name, 'has not tweeted in the past', daywindo
```

B.

Designing Your Session

- Pick a theme

- Keep it simple
  - Round Numbers
  - Limited Variables

- One session – reuse many times
  - As age of participants increases you can
    - Increase number of variables/constraints
    - Reduce the explicit instructions

- Open ended questions
  - They may surprise you

Moving On

- University
  - What degree?
  - Placement / year in industry opportunities

- Apprenticeship
  - Develop a more formal

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Early Career

- Learning by Doing
  - Shadow senior staff
  - Explore completed models
  - A Model for Life

- Internal training
  - Ad-hoc sessions on a particular element

- Formal Training / Qualifications
  - CCE/A
  - Stakeholder Management
  - Workshop facilitation
  - And many more!

Is there an End?

Questions?

Thank you

Any Questions?

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