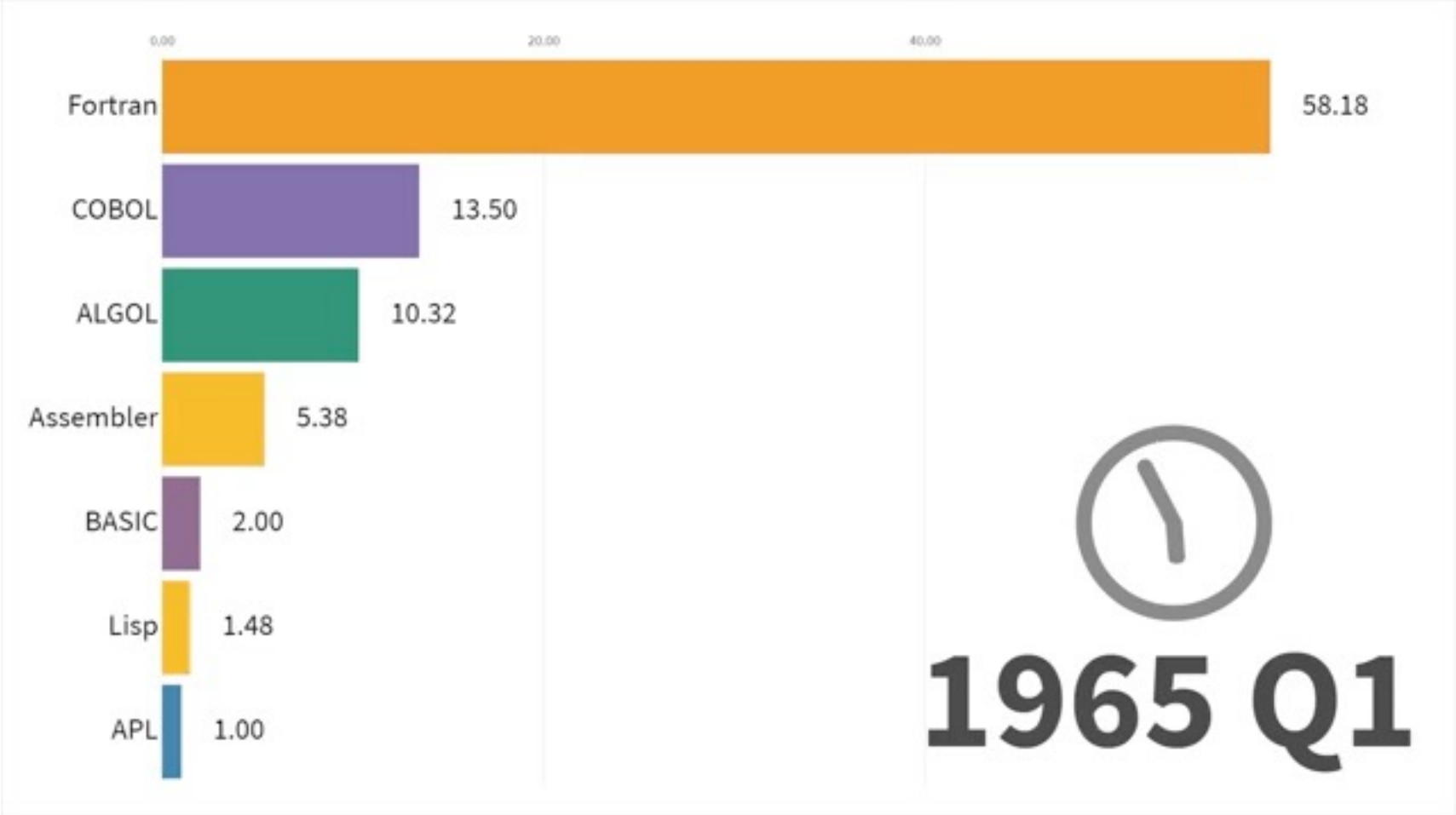


# Programming language popularity over time



# **BEM1025 Programming for Business Analytics**

**Module Lead: Mohsen Mosleh**  
**Email: [m.mosleh@exeter.ac.uk](mailto:m.mosleh@exeter.ac.uk)**

## Digital Check-In

- All **Tier 4 Student Visa Holders** must check in to teaching sessions
- To check-in visit: <https://m.exeter.ac.uk/>
- For help visit: <http://ex.ac.uk/CheckInHelp>



# Outline

- Warm up! (nice to meet you!)
- Introduction to BEM 1025
- Introduction to Colab (Jupyter) and basic Python

# About me!

## Background

- Senior Lecturer in the management department
- PhD in Systems **Engineering**, Minor in Business Analytics
- Postdoc at Yale/MIT
- Systems & Software Integration **Lead for five years**

## Research

- Social Network
- Misinformation and fake news

My TED talk: <https://youtu.be/qtsSFHGb8EY>

What about you?



<https://shorturl.at/iCGIK>

(5 min)

In this module you will learn **fundamental programming skills** that enable you to search and sort data. You will be introduced to programming in **Python**, and will learn how to develop and run programmes in **Jupyter Notebooks**. You will learn key programming principles and will practice applying them to real business problems. These skills will form the basis of your ability to address **business problems using data**.

# Module meetings

- Whole Cohort Lecture (Main lecture delivery, presentation of concepts):
  - Friday 9.35-10.25 (Purple LT (B) /Newman)
  
- Workshop/Tutorials (Hands-on programming and Q&A):
  - Monday 8:35-9:25 (B106 /Amory)
  - Monday 17:35-18:25 (170 /Harrison)
  - Friday 13:35- 14:25 (LT2 /IAIS Building)

depending on your individual timetable

Week 01 15/1/24	Session 01: Introduction to the module Introduction to Colab (Jupyter) and Python. No workshop this week –
Week 02 22/1/24	Session 02: Introduction to Pandas
Week 03 29/1/24	Session 03: Data Processing and Data Analysis
Week 04 5/2/24	Session 04: Data Assembly
Week 05 12/2/24	Session 05: 2hr lab based, open-book practical exam (40% of credit)  Exam occurs on 16/02/2024 15:30 UK time
Week 06 19/2/24	No Lecture – reading week
Week 07 26/2/24	Session 06: Data Transformation
Week 08 4/3/24	Session 07: Data Visualization
Week 09 11/3/24	Session 08: Functions
Week 10 18/3/24	Session 09: Introduction to R/invited speaker
Week 11 25/3/24	Session 10: 2hr lab based, open-book practical exam Workshop: Q&A and preparing for exam Exam occurs on 25/03/2024 15:00 UK time



# Assessment

Form of assessment	% of credit	Size of the assessment (eg length / duration)
Practical exam 1	40	2hr lab based, open-book practical exam
Practical exam 2	60	2hr lab based, open-book practical exam

- We organize in class online tests so that there is a time window (e.g., 6 hours) that students can start it at any point within that. However, the test itself is only 2hr (plus 30min for uploading to ELE)

# Assessment

- You will apply the concepts and techniques you learned in previous sessions. You are expected to work on the assignments on your own DURING the duration of the lab.
- You will be given a dataset in a jupyter-notebook where you need to address a set of questions regarding the dataset where you need to apply relevant options (e.g., sorting, filtering, columns operation, simple statistics, such as max, min, mean, grouping, and visualization).
- We will have exam prep sessions!
- You are expected to submit the code developed for each assignment AT THE END of the session.

Any questions on the course logistics?

# Recommended Reading

- [Think Python](#), Allen B, Downey, O'Reilly, second edition
- You may also find the following book useful for learning more about R. It is freely available online, and also available in printed format in the university library:
- [R for Data Science](#), Haley Wickham and Garrett Grolemund, O'Reilly, 2016
- There are further useful resources on the [Python](#) and [R](#) websites. Further information and resources for the Jupyter Notebook interactive development environment are available on the [Jupyter](#) website.

Programming is mostly about learning by doing!  
All materials will be posted on GitHub

## Contact me

[m.mosleh@exeter.ac.uk](mailto:m.mosleh@exeter.ac.uk) (Include [BEM 1025] in the subject line)

Office hours: <https://calendly.com/m-mosleh/bem1025>

# Lets get started with Colab!

<https://github.com/mosleh-exeter/BEM1025>

(We will use Google Colab for Python programming, but you can use your programming environment of your own if you like e.g., Anaconda)