MONASH University

Information Technology

# FIT5202

"It's about Big Data"

Week 1a – Overview

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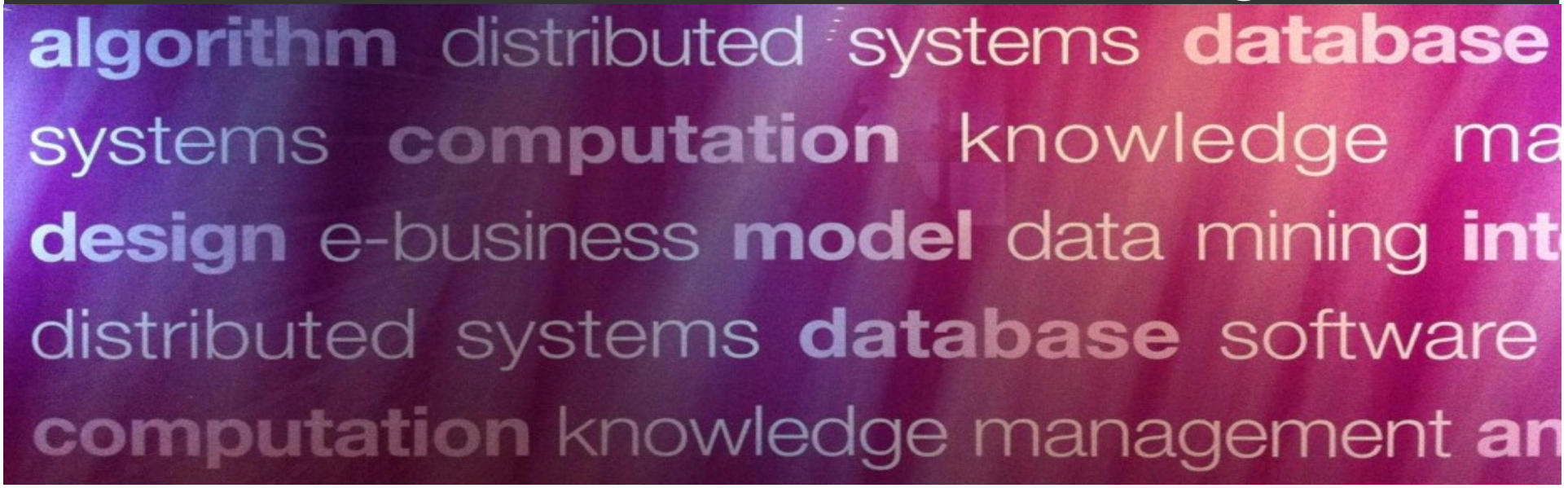


# Overview

1. A new unit

2. About Big Data

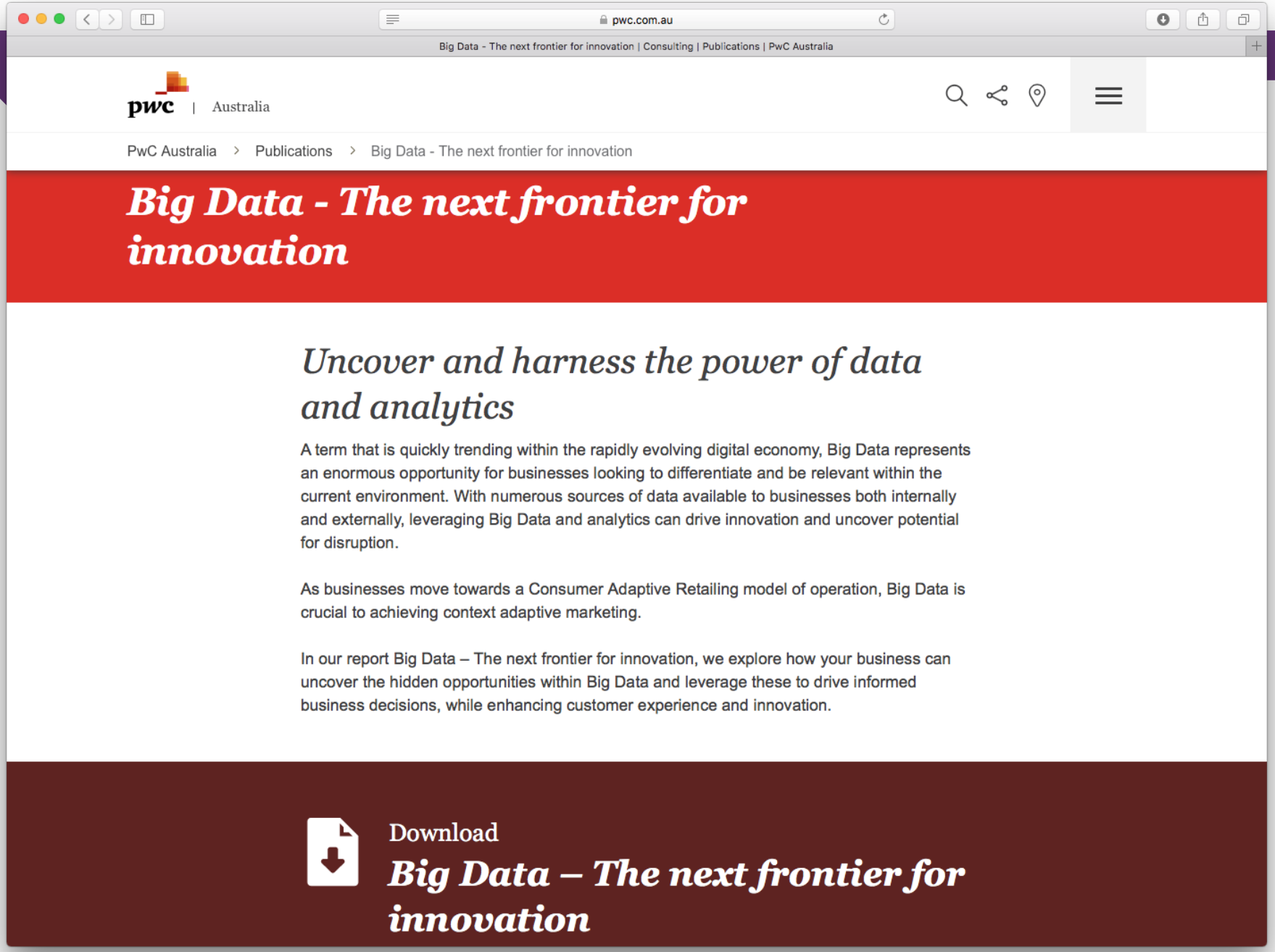
3. **Main requirement**:
   - You must like programming
   - Not necessarily databases

4. **1st Warning**:
   - Programming… Programming

# Why take this unit?

1. Jobs

2. Not enough experts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Big Data - The next frontier for innovation | Consulting | Publications | PwC Australia
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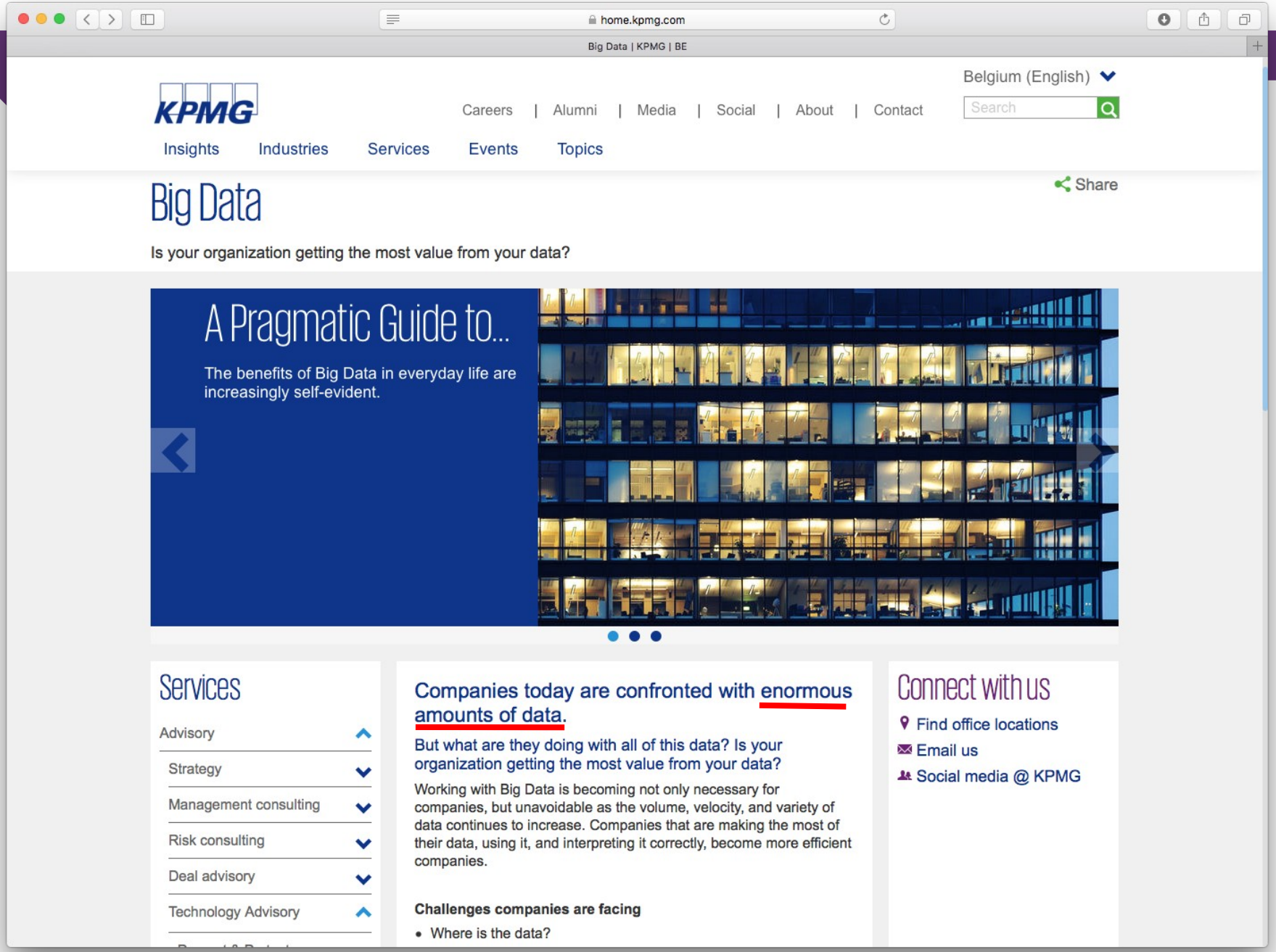
Big Data - The next frontier for innovation
Uncover and harness the power of data and analytics
A term that is quickly trending within the rapidly evolving digital economy, Big Data represents an enormous opportunity for businesses looking to differentiate and be relevant within the current environment. With numerous sources of data available to businesses both internally and externally, leveraging Big Data and analytics can drive innovation and uncover potential for disruption.
As businesses move towards a Consumer Adaptive Retailing model of operation, Big Data is crucial to achieving context adaptive marketing.
In our report Big Data – The next frontier for innovation, we explore how your business can uncover the hidden opportunities within Big Data and leverage these to drive informed business decisions, while enhancing customer experience and innovation.
Download
Big Data – The next frontier for innovation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Big Data
Is your organization getting the most value from your data?
A Pragmatic Guide to...
The benefits of Big Data in everyday life are increasingly self-evident.
Services
Advisory
Strategy
Management consulting
Risk consulting
Deal advisory
Technology Advisory
Companies today are confronted with enormous amounts of data.
But what are they doing with all of this data? Is your organization getting the most value from your data?
Working with Big Data is becoming not only necessary for companies, but unavoidable as the volume, velocity, and variety of data continues to increase. Companies that are making the most of their data, using it, and interpreting it correctly, become more efficient companies.
Challenges companies are facing
Where is the data?
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Find office locations
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Big opportunities, big challenges - EY - Global

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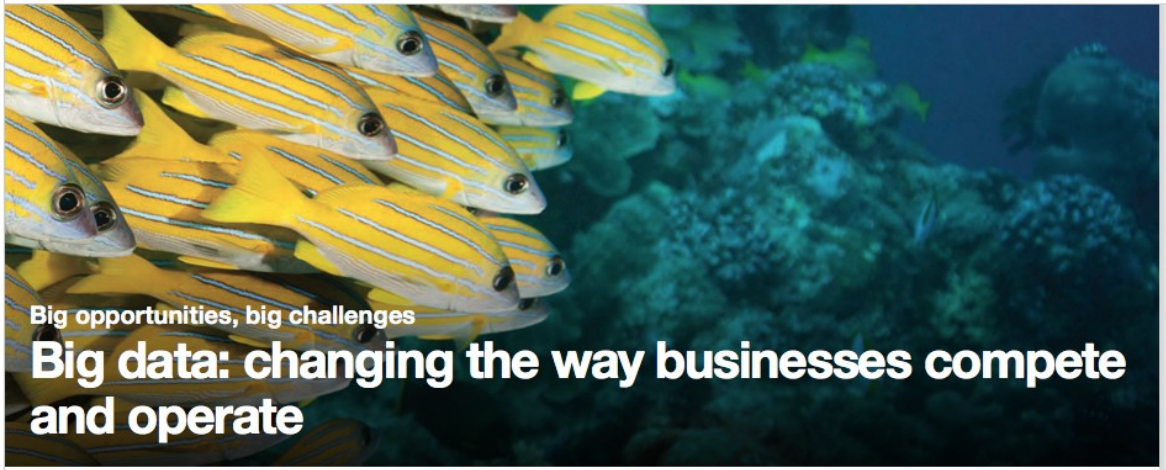

Big opportunities, big challenges

# Big data: changing the way businesses compete and operate

## Insight

- Big opportunities, big challenges
- Big data and analytics
- Seven big data drivers

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The idea of data creating business value is not new; however, the effective use of data is becoming the basis of competition.

Business has always wanted to derive insights from information to make better, smarter, real time, fact-based decisions: it is this demand for depth of knowledge that has fueled the growth of big data tools and platforms.

*Evolving technology has brought data analysis out of IT backrooms and extended the potential of using data-driven results into every facet of an organization.*

Big data will fundamentally change the way businesses compete and operate. Companies that invest in and successfully derive value from their data will have a distinct advantage over their competitors — a performance gap that will continue to grow as more relevant data is generated, emerging technologies and digital channels offer better acquisition and delivery mechanisms, and the technologies that enable faster, easier data analysis continue to develop.

### What is big data?

Big data refers to the dynamic, large and disparate volumes of data being created

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### Download


**Big data: Changing the way businesses compete and operate**

full report as a printable document.

### Related content

- Overcoming the challenges of big data
- Big risks require big data thinking
- Global Information Security Survey 2013
- Privacy trends 2014

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Contact a global Advisory leader

Telstra Corporation Limited

Telstra Big Data - Collect, Analysis & Visualisation Tools

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# Telstra Big Data Platform

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## Better insights, using your own data

Big Data Platform enables you to collect, combine and explore huge amounts of data in one place with advanced analysis and visualisation tools for faster time to insights

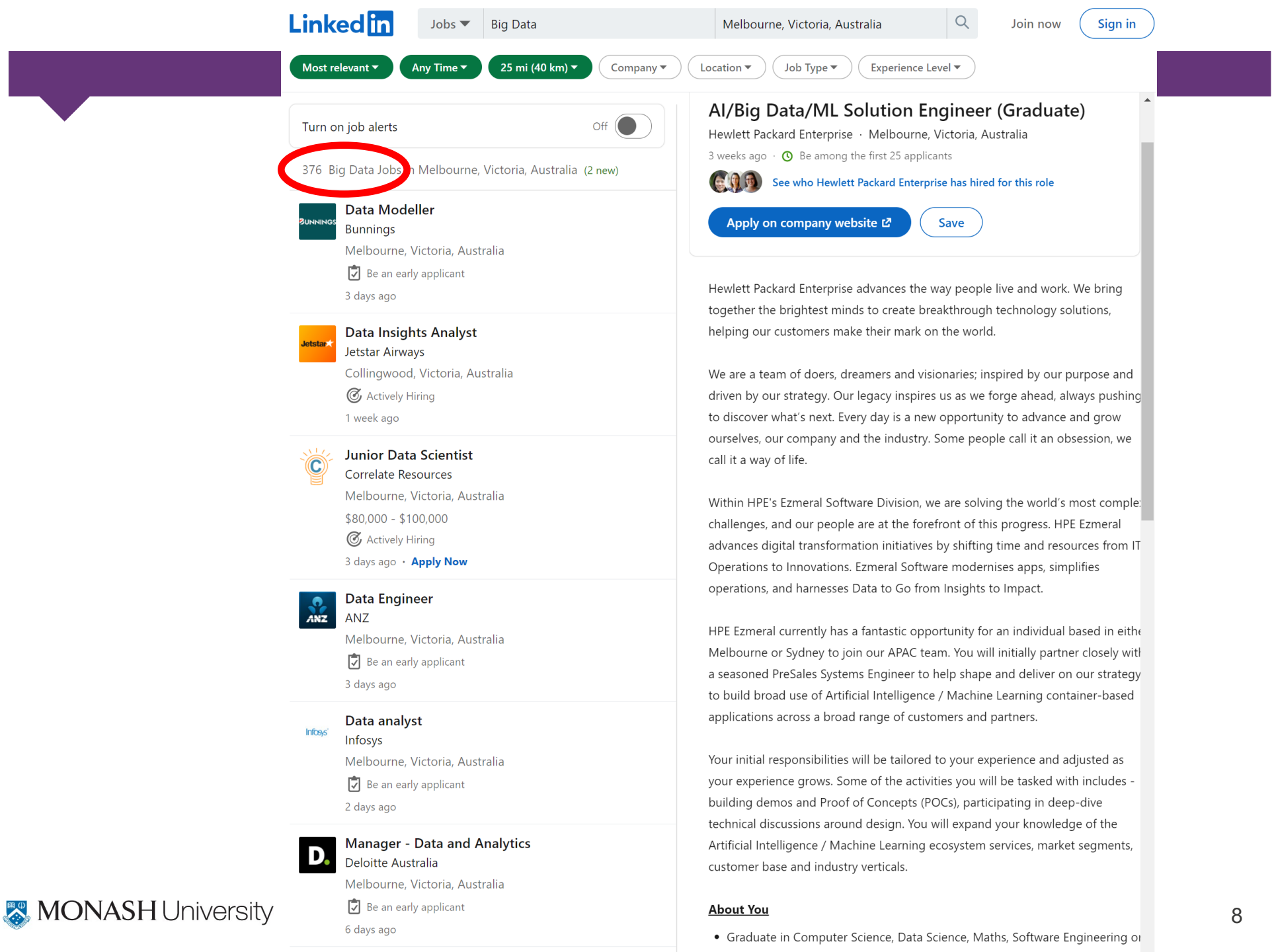
Watch Video

## Know your customer better, for better business outcomes.

Overview | Features | Why Telstra | Pricing | Learn more

Want to extract maximum value from your data? Here's the simple way to achieve it.

### Harness your data for big business opportunities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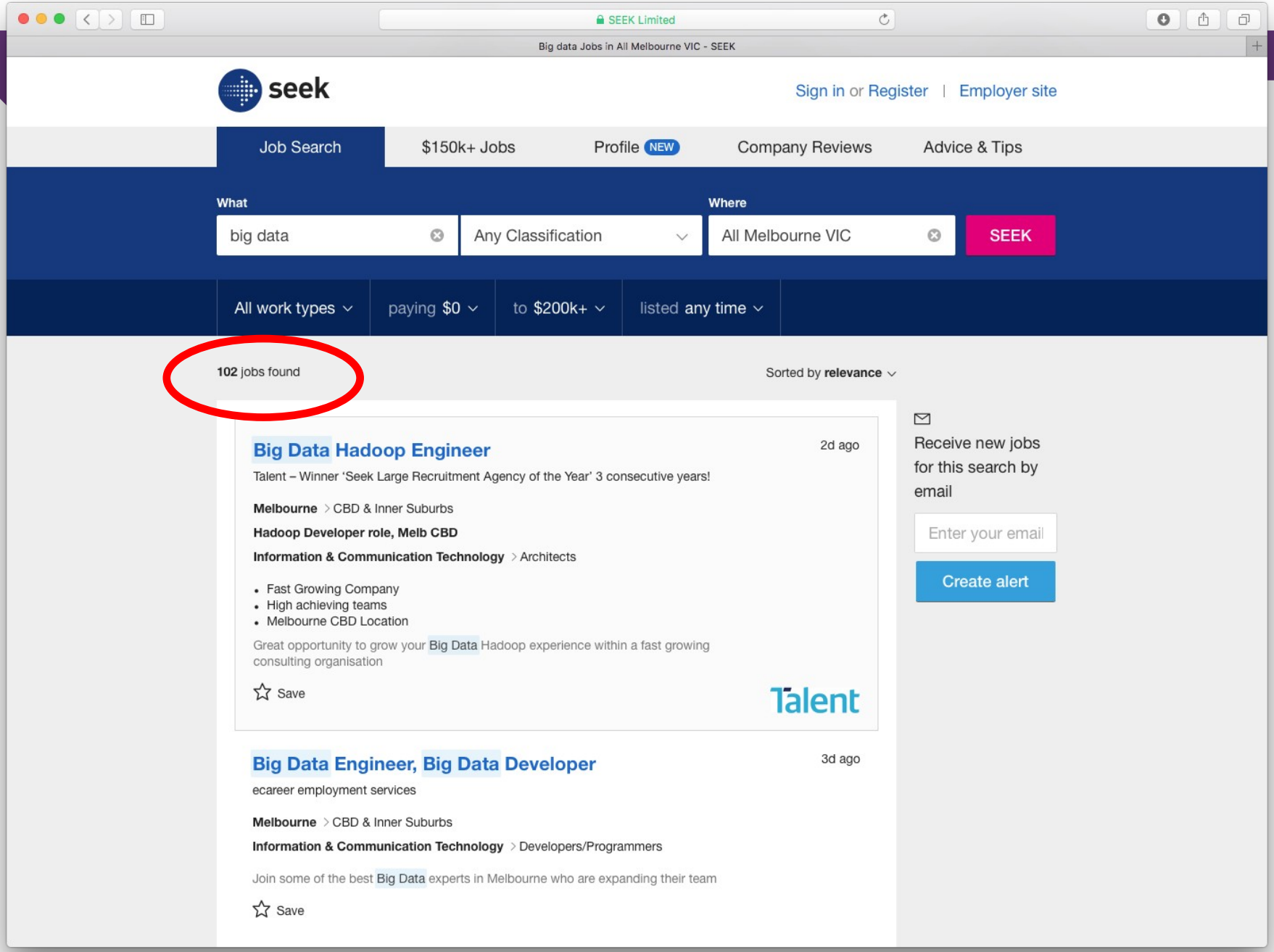
We are a team of doers, dreamers and visionaries; inspired by our purpose and driven by our strategy. Our legacy inspires us as we forge ahead, always pushing to discover what's next. Every day is a new opportunity to advance and grow ourselves, our company and the industry. Some people call it an obsession, we call it a way of life.
Within HPE's Ezmeral Software Division, we are solving the world's most comple challenges, and our people are at the forefront of this progress. HPE Ezmeral advances digital transformation initiatives by shifting time and resources from IT Operations to Innovations. Ezmeral Software modernises apps, simplifies operations, and harnesses Data to Go from Insights to Impact.
HPE Ezmeral currently has a fantastic opportunity for an individual based in eith Melbourne or Sydney to join our APAC team. You will initially partner closely wit a seasoned PreSales Systems Engineer to help shape and deliver on our strategy to build broad use of Artificial Intelligence / Machine Learning container-based applications across a broad range of customers and partners.
Your initial responsibilities will be tailored to your experience and adjusted as your experience grows. Some of the activities you will be tasked with includes - building demos and Proof of Concepts (POCs), participating in deep-dive technical discussions around design. You will expand your knowledge of the Artificial Intelligence / Machine Learning ecosystem services, market segments, customer base and industry verticals.
About You
• Graduate in Computer Science, Data Science, Maths, Software Engineering o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102 jobs found
Sorted by relevance
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Melbourne > CBD & Inner Suburbs
Hadoop Developer role, Melb CBD
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Fast Growing Company
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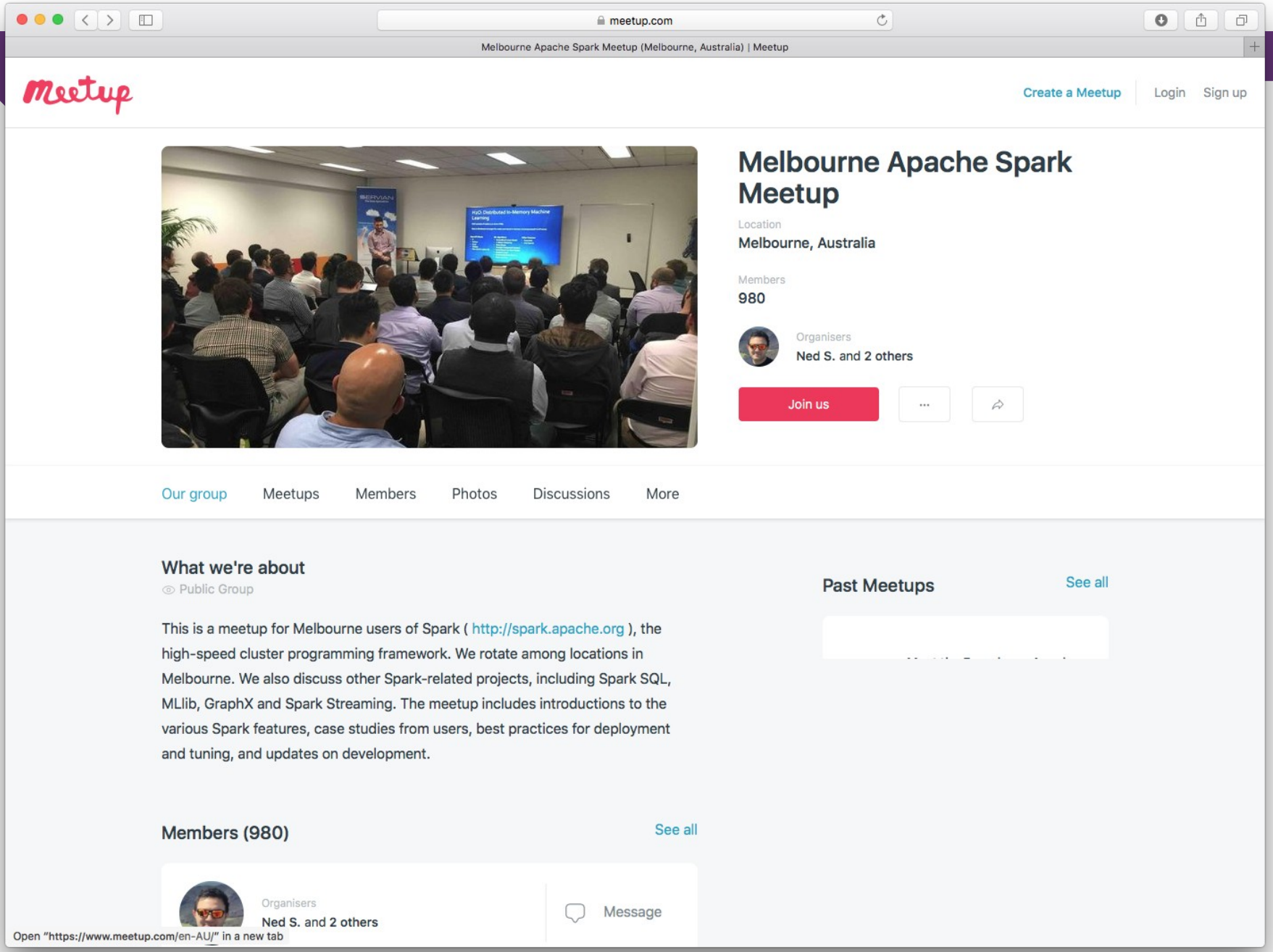
# Technologies you are going to learn…

1. **Python** as the base programming language
2. Apache **Kafka**
3. Apache **Spark and Streaming**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Public Group
This is a meetup for Melbourne users of Spark ( http://spark.apache.org ), the high-speed cluster programming framework. We rotate among locations in Melbourne. We also discuss other Spark-related projects, including Spark SQL, MLlib, GraphX and Spark Streaming. The meetup includes introductions to the various Spark features, case studies from users, best practices for deployment and tuning, and updates on development.
Past Meetups
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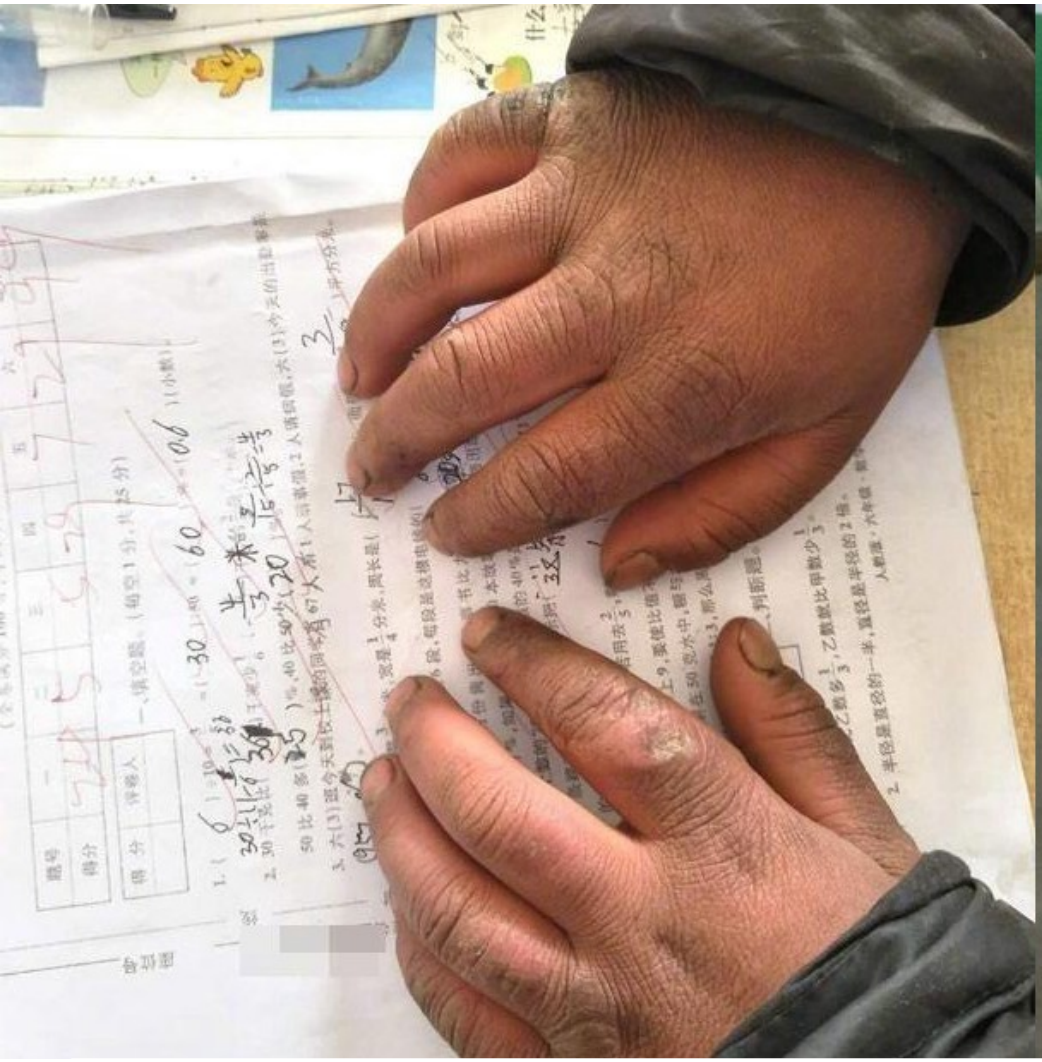
Open "https://www.meetup.com/en-AU/" in a new tab

# How to pass this unit?



https://medium.com/shanghaiist/ice-boy-moves-hearts-online-after-walking-4-5-km-to-school-in-freezing-temperatures-ca1c4938685b

# How to pass this unit?

**2nd Warning**:

- Do you really want to pass this unit?

**Following the learning pathway:**

- ❑ **Pre-workshop/lab**
  - ❑ Read Lecture materials
  - ❑ Watch lecture videos
  - ❑ Read lab resources
- ❑ Workshop: Important aspects of lectures will be highlighted and reviewed,
- ❑ Labs: Participation in lab tasks, followed by discussions by lecturer

# Assessments…

1. Weekly Quiz (5%)
   - Individual assessment
   - 5% (Week 2-11, 0.5 Mark * 10)
   - Each quiz opens for 6 days: 2 days before each week's lecture and closes 3 days after the lecture.
2. Assignments (40%)
   - 2 Individual Assignments
   - A1: 10% and A2: 30% (2 parts, 15% each)
3. Lab Tasks (5%)
   - Individual assessment
   - 5% (Week 2-11, 0.5 Mark, including 0.25 for attendance, and another 0.25 for 1-2 questions)
4. Exam (50%)

Hurdles:

- In-semester Hurdle (45%): Quiz+Lab+A1+A2 Part A+B *45% = 22.5/50.
- Final Exam Hurdle (45%): You need to get 22.5/50 in the final exam.

# Lecturers

- Chief Examiner

**Assoc. Prof. David Taniar**

- Lecturer

**Assoc. Prof. Ting Chee Ming**