5 min presentation in your supervisor group

Motivation - (why, why does the world need your project)

Background research - (what has already been done)

(what is missing? - you can fill the gap)

Project idea - (what is the idea)

Submit slides ahead of time

1000 word background research report

Reading week

BACKGROUND RESEARCH

* What have people done before

Dungeon crawler HRL, maxQ-Q vs maxQ, lots with Atari and alphago, muzero

* What is missing - you can fill the gap

Generalisation

Incremental Learning

Catastrophic Forgetting

* What can help me? What can I build on?

 Libraries:

ML-agents (unity, c#)

Gymnasium (python)

Tensorflow (python/c#)

Building on HRL paper?  
Many examples of building basics.

* Look at work that:
* Solves similar problems/is in a similar domain (does not have to use the same methods, eg: using VR for stress relief : look at how people have used technology (not just VR) for stress relief
* Uses similar methods - does not have to be in the same domain
* Eg: (Interesting and relevant uses of VR (not just for stress relief))

What to include in research

* Academic research (books, methods section // research papers, google scholar - usually transparent
* Industry products (competing products in market) - usually has a positive spin as they are trying to sell a product, be careful and aware its going to be a marketing pitch
* Open source projects
* Anything else relevant

Reading academic papers

* How to read a paper, S. Keshav 2007

Writing a literature review

* Analysing the past to prepare for the future : writing a ltierature review
* Ten simple rules for writing a literature review
* BlogL how to write a literature review? Computinglearner.com

Summarise papers you’ve read simply in a few sentences, the important part is explaining why they are relevant to you and how they help with the project

Finding relevant literature:

* Google scholar
* Connectedpapers.com
* Gartner?

SUGGESTED READING:

Projects in computing and information systems textbook (on VLE page)

PROPOSAL:

* Introduce subject area (sets overall context in a recognised field
* Current research (awareness of current issues within recognised field) preliminary back ground research)
* Identify a gap (indicates there is still work to be done in a field)
* Show how your work fills the gap (our contribution)
* Identify risks and solutions (consider what can go wrong, potential contingency

Title:

* Clear concise and specific, eg:
* "artificial neural networks for software development cost estimation"
* "development of process models for building graphical software tools"

Project type:

* Research based ( identifying strengths and weaknesses in a field, find gaps in knowledge)
* Development (new software, hardware, models, theories, algorithms, requirement specifications, designs
* Evaluation ( comparing diff solutions to a problem or assessing a particular implementation
* Industry based ( specific for a real client
* Problem solving ( develop a new solution, evaluate existing solutions on diff problems, improve efficiency)

Aim and objectives

* Aim (broad statement of intent, what you intend to achieve overall)
* Objectives (measurable, specific, more precise than the aim but build towards it