**WB401 Investigating Work- Based Learning and Self-Review**

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Student Name = William Cross

Student ID = 22220408

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# Introduction

This report highlights the business strategy and structure of STFC (Science and Technologies Facilities Council), the key competencies required for the role of apprentice software developer and how it compares to the apprenticeship standard as well as the relevance of apprenticeships in STFC. A reflection will also be conducted on an issue within this organisation that could be improved, in this case it will be the daily stand-up meeting that are conducted within CEDA (Centre for Environmental Data Analysis).

# Main body

## Organisation overview

### UKRI (United Kingdom Research and Development) is the organisation directly below the government Department for Science, Innovation and Technology which oversees the country’s research. The goal of UKRI is to improve the seven research councils below it (including STFC) to become more attractive to private research. It aims to achieve this by implementing a six objective strategy (making the UK the top destination for talented people and teams, securing the UK’s research position with outstanding institutions, infrastructures, sectors and clusters across the breadth of the country, advancing the frontiers of human knowledge to seize opportunities from emerging research trends, delivering the government’s vision for the UK as an innovation nation, Focusing the UK’s world-class science and innovation to target global and national challenges, make UKRI the most efficient, effective and agile organisation it can be (Leyser, O. Mackenzie, A, 2022)). Part of this strategy is to have talent continue to join the organisation “Apprentices in particular are vital to ensuring a pipeline of incoming talent to the STEM sector and ensures that we have a fit for purpose workforce” (Chipperfield, L. (2023) Email to William Cross, 31 July.) The structure of UKRI includes sever research councils including STFC with RAL Space (Rutherford Appleton Laboratory) under it and CEDA under that, with CEDA being the focus of this report.

A diagram of a company

Description automatically generated

## Role and competencies

The role I have in the organisation is titled apprentice software developer when asked about the key competencies required for my role Jack (a co-worker) replied with a list of skills “problem solving, programming with python, command line proficiency, git” (Leland, J. (2023) Slack message to William Cross, 26 July.). These are the key skills required for software development which are learnt either before or during the apprenticeship. A few key competencies include communicating with all types of people (technical and non-technical background), the ability to work well in a team and to work well independently and know when to ask for help (Chipperfield, L. (2023) Email to William Cross from STFC resourcing department job description, 31 July.). The apprenticeship standard also has similar required competencies, for example in the Digital and Technology Solutions Professional Level 6 apprenticeship (the one I am doing), the standards are “Reliable, objective and capable of both independent and team working.” And “Interacts professionally with people from technical and non-technical backgrounds. Presents data and conclusions in an evidently truthful, concise and appropriate manner.” (Leah, T. (2023) Email PDF sent to William Cross, 31 July.). The more specific aspects of this includes creating effective programs, testing and reviewing code and analysing code. (Institute for Apprenticeships and Technical Education (2019) *Digital and technology solutions professional (integrated degree)*. Available at: <https://www.instituteforapprenticeships.org/apprenticeship-standards/digital-and-technology-solutions-professional-integrated-degree-v1-1> (Accessed: 1 August 2023).). The relevance of the apprenticeship standard to my role is that it is what I need to be able to complete the jobs I am given, for example I need to be able to talk to other developers in order to get new tasks and information on those tasks so that I can work on them either independently or as a team. Therefore, the standard is essential to my role as without the skills on it I would not be able to do my job. The apprenticeship standard is important to the organisation as training people to work in STEM (Science Technology Engineering and Maths) aligns with their business strategy to support the full range of talent required to grow the UK’s talent base and ensure the UK is a magnet for global research and development (UK Research and Innovation (UKRI) (2022) *UKRI Corporate Plan 2022-2025*. Available at: <https://www.ukri.org/wp-content/uploads/2022/08/UKRI-190822-CorporatePlan2022to2025.pdf> (Accessed: 1 August 2023).).

## Workplace improvement reflection

Identify a potential issue or opportunity where you may be able to contribute to the organisation and act for improvement as part of a future work-based inquiry. Carry out a structured reflection on an event that relates to this area of inquiry by using a reflective model such as: Gibbs (1988), Kolb (1984)

The point im making: daily standups

31 july: standup was 30 mins long talked about some things that effected some people but not all and were talking about possibly making another meeting but not until the 30 mins very long not entirely helpful should be more focused than this

Reflection of my personal experience: use the gibbs model here and talk about the standups

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Description: specific consise description no analysis

Feelings: how feel was diff before, how make feel, react during, think feel after, descriptive

Evaluate: went well, not well, how end, no analysis

Analysis: analise it, wat was useful why, not descriptive, explain cause and consiquence

Conclusion: what learned from it, be specific about what learned or about self

Action plan: what do be more prepd 4 futre

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How it could be made better (jack source again?): ideas of what to do differently use source

Why important: distracting? Use source?

“I think it has a tendency to not be very useful if everyone just shows up and says the bare minimum about what they’re working on, as opposed to what their problems/roadblocks have been” (Leland, J. (2023) Slack message to William Cross, 28 July.)

# Conclusion

Restate point and make conclusion on analysis do not add new ideas at this point

“I said this” (Cross, 2023)

“I said this” (Cross, W. (2023) Slack message to William Cross, 26 July.)

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