**Chengdu University of Technology Oxford Brookes College**

**Project Module (CHC 6096)**

**Weekly Report Sheet - 2023/2024 Academic Year**

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| STUDENT NAME: | Wang Yutong (Ryan) |
| STUDENT NUMBER: | 202018010315 |
| SUPERVISOR NAME: | Joojo |
| WEEK NUMBER | Week 4 |
| DATE: | 2023/10/27 |
| **Action plan for the current week:**   1. Search for papers on variational autoencoders and recommender systems and read them. 2. Familiarize with the principles of variational autoencoders and the mathematical concepts that are used. Such as KL divergence and ELBO (evidence lower bound). 3. Edit the project proposal | |
| **Challenges and issues encountered in the week:**   1. The mathematical theory explained in the paper is very complex and difficult to understand. 2. There are many improved models based on VAE with different characteristics. It's hard to choose some to apply to the book recommendation system. | |
| **Action plan for the next week:**   1. Keep working on the project proposal. 2. Download datasets about books.      1. Research VAE models by reading papers, watching video lectures and chatting with AI, etc. And find several VAE models that may be applicable | |
| **Supervisor Feedback:** | |