Option B – Marking Scheme:

How does the bonus marks (+3) work?

The bonus marks will be added to your total but the total mark for Option B cannot exceed 100 marks.

| Task | Deadline | Mark |
|--|--------------------|-------|
| Task B.1 : Set up your environment for the project including on | 11:59pm 18/08/2023 | 10 |
| your local machine and a github repository; run the given | (Week 3) | (+3) |
| code bases. | | |
| Task B.2: Data Processing 1: Load and process datasets with | 11:59pm 25/08/2023 | 10 |
| multiple features; use different methods to split the data into | (Week 4) | |
| train/test data; store/load data locally for future uses. | | |
| Task B.3: Data Processing 2: Use different methods to | 11:59pm 1/09/2023 | 10 |
| visualise your data; store a visualisation of your data as an | (Week 5) | |
| image for image processing. | | |
| Task B.4: Machine Learning 1: Use a more general way to | 11:59pm 8/09/2023 | 10 |
| construct the model. Try different DL networks: | (Week 6) | |
| RNN/GRU/Simple FF. Experiment with different | | |
| hyperparameter configurations. | | |
| Task B.5: Machine Learning 2: Solve more advanced | 11:59pm 22/09/2023 | 15 |
| prediction problems including multivariate prediction and | (Week 7) | |
| multistep prediction. | | |
| Task B.6: Machine Learning 3: Work on ensemble | 11:59pm 6/10/2023 | 15 |
| approach/combining multiple approaches for improving | (Week 9) | |
| prediction quality. | | |
| Task B.7: Simple Extension beyond B.1-6 Combine stock | 11:59pm 29/10/2023 | 10 |
| price data with other types of data (e.g., the number of times | (Sunday Week 12) | |
| the company is mentioned on Twitter, etc.) – to be suggested | | |
| and supervised by the project leader. | | |
| Task B.7: Comprehensive extension + Independent Research | 11:59pm 29/10/2023 | 20 |
| (approved by unit convenor) You initiate the extension by | (Sunday Week 12) | |
| yourself and conduct an independent and outstanding | | |
| research. | | |
| | | |
| Total | | 100 |
| You need to follow good programming practice (e.g., well- | | Up to |
| designed, well-structured codes with clear and helpful | | -20 |
| comments). Failure to do so get penalty. | | |