Rationale for approach

Time is the major factor in deciding the approach for both the sections that are attempted. Total time taken to work on Section 1 and Section 2 is 3hrs 30mins (Considering I was asked to allocate around 3 hrs). Section 3 is Out of scope for my current experience and hence did not attempt it.

Section 1: (Time Spent: 2hrs)

* The given timeframe doesn’t allow me to create a new API along with the logic to implement the POST call to the database with the level of knowledge that I have on API development.
* It would have taken me the full 3hours just to create the API and implement the logic, let alone hosting it.
* Given my expertise in hosting an existing application rather than creating a new one, I took the liberty to explain the process I would follow to create the required webAPI and database and host it in Azure Kubernetes Service.

Section 2: (Time spent: 1hr 30mins)

* Even though I am ‘Okay’ at writing database queries, I am not good enough to explain why I took a specific approach compared to another/a better approach.
* So, I tried to showcase my Powershell scripting skills to implement all the queries listed in this section and provided the outputs as required.
* In order to be compatible, I used the JSON format for the input data – which is read at run-time and processed by the Powershell script to present the output in the required format.
* I took the liberty to parameterize the inputs, giving the users a better experience rather than implementing just what was asked of me.
* Implemented input data validation (for the user entered arguments) and boundary checks wherever possible.