# Data Science Interview Question

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| **Version** | Spend Propensity & Recommendation |
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| **Objective** | To:  1. Analyze member spent propensity across product groups  2. Derive recommendation strategy and function logic and describe its efficacies and limitations on various marketing scenarios |
| **Dataset** | 10,000 members spending propensity on various categories of products (indexed as follow) ['Transportation','Health','LuxuryGoods','Service','Telecommunications','Groceries','Clothing','Food&Beverage','PublicUtilities','Others']  *\*\* File format*  ndarray – (10000,10) numpy ndarray C file object (to be read by np.fromfile) |
| **Submission** | Please zip all the information listed below and reply this email  - analysis scripts / notebooks  - recommendation function with call signature ***def get\_member\_recommendation(member\_id: str, \*\*kwargs)***  - description / analysis / designs on recommendation function made above (Text documents / code comments / LaTex blocks in notebooks are accepted) |
| **Ranking Criteria** | 1. Quality of analysis / rationale / findings drawn from the dataset 2. Recommendation function design 3. Design evaluation on the recommendation function |
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| **Dataset URL** | https://www.dropbox.com/s/fnhq6n8m0oknm12/spend\_propensity.ndarray?dl=0 |
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