除了特別重要的multiple choice題目ex: IDE, programming language, ML framework之外

把其他不重要的multiple choice 選項(沒黃標的)都合併,把題目question改成對skills的熟練程度

ex: 會三項就是3,會五項就是5,不再特別細分

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| --- | --- |
| Q1 | What is your age (# years)? (11 level可合併成5 level) 改成10歲一個區間 |
| Q2 | What is your gender? - Selected Choice (可刪） |
| Q3 | In which country do you currently reside? (可刪) |
| Q4 | What is the highest level of formal education that you have attained or plan to attain within the next 2 years? |
| Q5 | Select the title most similar to your current role (or most recent title if retired): - Selected Choice |
| Q6 | What is the size of the company where you are employed? |
| Q8 | Does your current employer incorporate machine learning methods into their business? |
| Q9\_Part\_1 | Select any activities that make up an important part of your role at work: (Select all that apply) - Selected Choice - Analyze and understand data to influence product or business decisions |
| Q9\_Part\_2 | Select any activities that make up an important part of your role at work: (Select all that apply) - Selected Choice - Build and/or run the data infrastructure that my business uses for storing, analyzing, and operationalizing data |
| Q9\_Part\_3 | Select any activities that make up an important part of your role at work: (Select all that apply) - Selected Choice - Build prototypes to explore applying machine learning to new areas |
| Q9\_Part\_4 | Select any activities that make up an important part of your role at work: (Select all that apply) - Selected Choice - Build and/or run a machine learning service that operationally improves my product or workflows |
| Q9\_Part\_5 | Select any activities that make up an important part of your role at work: (Select all that apply) - Selected Choice - Experimentation and iteration to improve existing ML models |
| Q9\_Part\_6 | Select any activities that make up an important part of your role at work: (Select all that apply) - Selected Choice - Do research that advances the state of the art of machine learning |
| Q9\_Part\_7 | Select any activities that make up an important part of your role at work: (Select all that apply) - Selected Choice - None of these activities are an important part of my role at work |
| Q10 | What is your current yearly compensation (approximate $USD)?  0-999 變成0 (unemployed or student)  50k 以下全部合併  200k 以上全部合併 |
| Q11 | Approximately how much money have you spent on machine learning and/or cloud computing products at your work in the past 5 years? |
| Q13\_Part\_1 | On which platforms have you begun or completed data science courses? (Select all that apply) - Selected Choice - Udacity |
| Q13\_Part\_2 | On which platforms have you begun or completed data science courses? (Select all that apply) - Selected Choice - Coursera |
| Q13\_Part\_3 | On which platforms have you begun or completed data science courses? (Select all that apply) - Selected Choice - edX |
| Q13\_Part\_4 | On which platforms have you begun or completed data science courses? (Select all that apply) - Selected Choice - DataCamp |
| Q13\_Part\_5 | On which platforms have you begun or completed data science courses? (Select all that apply) - Selected Choice - DataQuest |
| Q13\_Part\_6 | On which platforms have you begun or completed data science courses? (Select all that apply) - Selected Choice - Kaggle Courses (i.e. Kaggle Learn) |
| Q13\_Part\_7 | On which platforms have you begun or completed data science courses? (Select all that apply) - Selected Choice - Fast.ai |
| Q13\_Part\_8 | On which platforms have you begun or completed data science courses? (Select all that apply) - Selected Choice - Udemy |
| Q13\_Part\_9 | On which platforms have you begun or completed data science courses? (Select all that apply) - Selected Choice - LinkedIn Learning |
| Q13\_Part\_10 | On which platforms have you begun or completed data science courses? (Select all that apply) - Selected Choice - University Courses (resulting in a university degree) |
| Q14 | What is the primary tool that you use at work or school to analyze data? (Include text response) - Selected Choice |
| Q15 | How long have you been writing code to analyze data (at work or at school)? |
| Q16\_Part\_1 | Which of the following integrated development environments (IDE's) do you use on a regular basis? (Select all that apply) - Selected Choice - Jupyter (JupyterLab, Jupyter Notebooks, etc) (可以合并） |
| Q16\_Part\_2 | Which of the following integrated development environments (IDE's) do you use on a regular basis? (Select all that apply) - Selected Choice - RStudio |
| Q16\_Part\_3 | Which of the following integrated development environments (IDE's) do you use on a regular basis? (Select all that apply) - Selected Choice - PyCharm |
| Q16\_Part\_4 | Which of the following integrated development environments (IDE's) do you use on a regular basis? (Select all that apply) - Selected Choice - Atom |
| Q16\_Part\_5 | Which of the following integrated development environments (IDE's) do you use on a regular basis? (Select all that apply) - Selected Choice - MATLAB |
| Q16\_Part\_6 | Which of the following integrated development environments (IDE's) do you use on a regular basis? (Select all that apply) - Selected Choice - Visual Studio / Visual Studio Code |
| Q16\_Part\_7 | Which of the following integrated development environments (IDE's) do you use on a regular basis? (Select all that apply) - Selected Choice - Spyder |
| Q16\_Part\_8 | Which of the following integrated development environments (IDE's) do you use on a regular basis? (Select all that apply) - Selected Choice - Vim / Emacs |
| Q16\_Part\_9 | Which of the following integrated development environments (IDE's) do you use on a regular basis? (Select all that apply) - Selected Choice - Notepad++ |
| Q16\_Part\_10 | Which of the following integrated development environments (IDE's) do you use on a regular basis? (Select all that apply) - Selected Choice - Sublime Text |
| Q18\_Part\_1 | What programming languages do you use on a regular basis? (Select all that apply) - Selected Choice - Python |
| Q18\_Part\_2 | What programming languages do you use on a regular basis? (Select all that apply) - Selected Choice - R |
| Q18\_Part\_3 | What programming languages do you use on a regular basis? (Select all that apply) - Selected Choice - SQL |
| Q18\_Part\_4 | What programming languages do you use on a regular basis? (Select all that apply) - Selected Choice - C |
| Q18\_Part\_5 | What programming languages do you use on a regular basis? (Select all that apply) - Selected Choice - C++ |
| Q18\_Part\_6 | What programming languages do you use on a regular basis? (Select all that apply) - Selected Choice - Java |
| Q18\_Part\_7 | What programming languages do you use on a regular basis? (Select all that apply) - Selected Choice - Javascript |
| Q18\_Part\_8 | What programming languages do you use on a regular basis? (Select all that apply) - Selected Choice - TypeScript |
| Q18\_Part\_9 | What programming languages do you use on a regular basis? (Select all that apply) - Selected Choice - Bash |
| Q18\_Part\_10 | What programming languages do you use on a regular basis? (Select all that apply) - Selected Choice - MATLAB |
| Q20\_Part\_1 | What data visualization libraries or tools do you use on a regular basis? (Select all that apply) - Selected Choice - Ggplot / ggplot2 |
| Q20\_Part\_2 | What data visualization libraries or tools do you use on a regular basis? (Select all that apply) - Selected Choice - Matplotlib |
| Q20\_Part\_3 | What data visualization libraries or tools do you use on a regular basis? (Select all that apply) - Selected Choice - Altair |
| Q20\_Part\_4 | What data visualization libraries or tools do you use on a regular basis? (Select all that apply) - Selected Choice - Shiny |
| Q20\_Part\_5 | What data visualization libraries or tools do you use on a regular basis? (Select all that apply) - Selected Choice - D3.js |
| Q20\_Part\_6 | What data visualization libraries or tools do you use on a regular basis? (Select all that apply) - Selected Choice - Plotly / Plotly Express |
| Q20\_Part\_7 | What data visualization libraries or tools do you use on a regular basis? (Select all that apply) - Selected Choice - Bokeh |
| Q20\_Part\_8 | What data visualization libraries or tools do you use on a regular basis? (Select all that apply) - Selected Choice - Seaborn |
| Q20\_Part\_9 | What data visualization libraries or tools do you use on a regular basis? (Select all that apply) - Selected Choice - Geoplotlib |
| Q20\_Part\_10 | What data visualization libraries or tools do you use on a regular basis? (Select all that apply) - Selected Choice - Leaflet / Folium |
| Q23 | For how many years have you used machine learning methods? |
| Q24\_Part\_1 | Which of the following ML algorithms do you use on a regular basis? (Select all that apply): - Selected Choice - Linear or Logistic Regression |
| Q24\_Part\_2 | Which of the following ML algorithms do you use on a regular basis? (Select all that apply): - Selected Choice - Decision Trees or Random Forests |
| Q24\_Part\_3 | Which of the following ML algorithms do you use on a regular basis? (Select all that apply): - Selected Choice - Gradient Boosting Machines (xgboost, lightgbm, etc) |
| Q24\_Part\_4 | Which of the following ML algorithms do you use on a regular basis? (Select all that apply): - Selected Choice - Bayesian Approaches |
| Q24\_Part\_5 | Which of the following ML algorithms do you use on a regular basis? (Select all that apply): - Selected Choice - Evolutionary Approaches |
| Q24\_Part\_6 | Which of the following ML algorithms do you use on a regular basis? (Select all that apply): - Selected Choice - Dense Neural Networks (MLPs, etc) |
| Q24\_Part\_7 | Which of the following ML algorithms do you use on a regular basis? (Select all that apply): - Selected Choice - Convolutional Neural Networks |
| Q24\_Part\_8 | Which of the following ML algorithms do you use on a regular basis? (Select all that apply): - Selected Choice - Generative Adversarial Networks |
| Q24\_Part\_9 | Which of the following ML algorithms do you use on a regular basis? (Select all that apply): - Selected Choice - Recurrent Neural Networks |
| Q24\_Part\_10 | Which of the following ML algorithms do you use on a regular basis? (Select all that apply): - Selected Choice - Transformer Networks (BERT, gpt-2, etc) |
| Q26\_Part\_1 | Which categories of computer vision methods do you use on a regular basis? (Select all that apply) - Selected Choice - General purpose image/video tools (PIL, cv2, skimage, etc) |
| Q26\_Part\_2 | Which categories of computer vision methods do you use on a regular basis? (Select all that apply) - Selected Choice - Image segmentation methods (U-Net, Mask R-CNN, etc) |
| Q26\_Part\_3 | Which categories of computer vision methods do you use on a regular basis? (Select all that apply) - Selected Choice - Object detection methods (YOLOv3, RetinaNet, etc) |
| Q26\_Part\_4 | Which categories of computer vision methods do you use on a regular basis? (Select all that apply) - Selected Choice - Image classification and other general purpose networks (VGG, Inception, ResNet, ResNeXt, NASNet, EfficientNet, etc) |
| Q26\_Part\_5 | Which categories of computer vision methods do you use on a regular basis? (Select all that apply) - Selected Choice - Generative Networks (GAN, VAE, etc) |
| Q27\_Part\_1 | Which of the following natural language processing (NLP) methods do you use on a regular basis? (Select all that apply) - Selected Choice - Word embeddings/vectors (GLoVe, fastText, word2vec) |
| Q27\_Part\_2 | Which of the following natural language processing (NLP) methods do you use on a regular basis? (Select all that apply) - Selected Choice - Encoder-decorder models (seq2seq, vanilla transformers) |
| Q27\_Part\_3 | Which of the following natural language processing (NLP) methods do you use on a regular basis? (Select all that apply) - Selected Choice - Contextualized embeddings (ELMo, CoVe) |
| Q27\_Part\_4 | Which of the following natural language processing (NLP) methods do you use on a regular basis? (Select all that apply) - Selected Choice - Transformer language models (GPT-2, BERT, XLnet, etc) |
| Q28\_Part\_1 | Which of the following machine learning frameworks do you use on a regular basis? (Select all that apply) - Selected Choice - Scikit-learn |
| Q28\_Part\_2 | Which of the following machine learning frameworks do you use on a regular basis? (Select all that apply) - Selected Choice - TensorFlow |
| Q28\_Part\_3 | Which of the following machine learning frameworks do you use on a regular basis? (Select all that apply) - Selected Choice - Keras |
| Q28\_Part\_4 | Which of the following machine learning frameworks do you use on a regular basis? (Select all that apply) - Selected Choice - RandomForest |
| Q28\_Part\_5 | Which of the following machine learning frameworks do you use on a regular basis? (Select all that apply) - Selected Choice - Xgboost |
| Q28\_Part\_6 | Which of the following machine learning frameworks do you use on a regular basis? (Select all that apply) - Selected Choice - PyTorch |
| Q28\_Part\_7 | Which of the following machine learning frameworks do you use on a regular basis? (Select all that apply) - Selected Choice - Caret |
| Q28\_Part\_8 | Which of the following machine learning frameworks do you use on a regular basis? (Select all that apply) - Selected Choice - LightGBM |
| Q28\_Part\_9 | Which of the following machine learning frameworks do you use on a regular basis? (Select all that apply) - Selected Choice - Spark MLib |
| Q28\_Part\_10 | Which of the following machine learning frameworks do you use on a regular basis? (Select all that apply) - Selected Choice - Fast.ai |
| Q29\_Part\_1 | Which of the following cloud computing platforms do you use on a regular basis? (Select all that apply) - Selected Choice - Google Cloud Platform (GCP) |
| Q29\_Part\_2 | Which of the following cloud computing platforms do you use on a regular basis? (Select all that apply) - Selected Choice - Amazon Web Services (AWS) |
| Q29\_Part\_3 | Which of the following cloud computing platforms do you use on a regular basis? (Select all that apply) - Selected Choice - Microsoft Azure |
| Q34\_Part\_1 | Which of the following relational database products do you use on a regular basis? (Select all that apply) - Selected Choice - MySQL |
| Q34\_Part\_2 | Which of the following relational database products do you use on a regular basis? (Select all that apply) - Selected Choice - PostgresSQL |
| Q34\_Part\_3 | Which of the following relational database products do you use on a regular basis? (Select all that apply) - Selected Choice - SQLite |
| Q34\_Part\_4 | Which of the following relational database products do you use on a regular basis? (Select all that apply) - Selected Choice - Microsoft SQL Server |
| Q34\_Part\_5 | Which of the following relational database products do you use on a regular basis? (Select all that apply) - Selected Choice - Oracle Database |
| Q34\_Part\_6 | Which of the following relational database products do you use on a regular basis? (Select all that apply) - Selected Choice - Microsoft Access |
| Q34\_Part\_7 | Which of the following relational database products do you use on a regular basis? (Select all that apply) - Selected Choice - AWS Relational Database Service |
| Q34\_Part\_8 | Which of the following relational database products do you use on a regular basis? (Select all that apply) - Selected Choice - AWS DynamoDB |
| Q34\_Part\_9 | Which of the following relational database products do you use on a regular basis? (Select all that apply) - Selected Choice - Azure SQL Database |
| Q34\_Part\_10 | Which of the following relational database products do you use on a regular basis? (Select all that apply) - Selected Choice - Google Cloud SQL |