

1.

a. Answer

- 1) Meaningless header in column 1-11.
- 2) Mullite value in column 11 To make these variable can be input of data analytics.
- 3) Missing value.
- 4) Inconsistent Name Format.
- 5) Outlier value like '77'.

b. Answer

- 1) Find out the meaning of the column or guess it.
- 2) Separate the value and one-hot encode create dummies variable.
- 3) Drop the observations with too many missing values.
- 4) Change all the Name with format of Family name then Given name like "Chen Bob".
- 5) Drop the observations or using mean to fill.

c. Answer

Name	Age	1	2	3	4	5	6	7	8	9	10	Happy	Fear	Sad	Anger
CHAN Amy	22	6	6	6	6	3	4	6	6	6	6	1	1	0	0
Chen Bob	25	5	5	6	5	6	4	5	4	5	6	0	0	1	1
Zhen Chi	30	2	3	2	4	1	3	4	5	6		0	1	1	1

d. Answer

Tokenization, Term Weighting, Part-of-Speech Tagging.

e. Answer

Prevent Overfitting and creating variations of the audio data, which helps in training more generalizable models.