

Dry Etch

Recipes run in Equipments

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VFD, Dry Etch

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Background

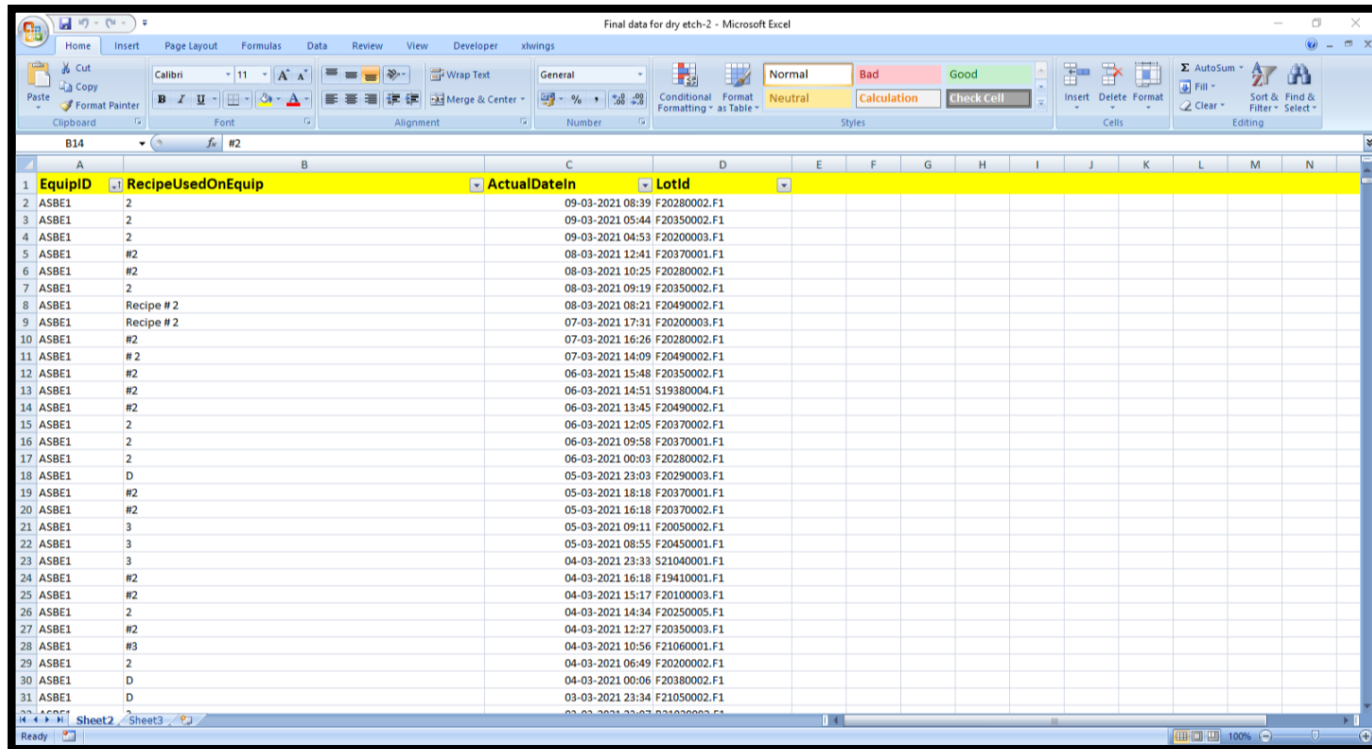
- The shared raw data contains the recipes used for running lots in equipment(s)/chamber(s) with datetime.

Objective

- List down the unique recipes run in respective equipment(s)/chamber(s).
- Show the frequency of each recipe run in respective equipment(s)/chamber(s).

Raw Data

- It contains **17,284** rows & **4** columns. So, the only procedure to extract meaningful information is using scripts.



EquipID	RecipeUsedOnEquip	ActualDateIn	LotId
ASBE1	2	09-03-2021 08:39	F20280002.F1
ASBE1	2	09-03-2021 05:44	F20350002.F1
ASBE1	2	09-03-2021 04:53	F20200003.F1
ASBE1	#2	08-03-2021 12:41	F20370001.F1
ASBE1	#2	08-03-2021 10:25	F20280002.F1
ASBE1	2	08-03-2021 09:19	F20350002.F1
ASBE1	Recipe # 2	08-03-2021 08:21	F20490002.F1
ASBE1	Recipe # 2	07-03-2021 17:31	F20200003.F1
ASBE1	#2	07-03-2021 16:26	F20280002.F1
ASBE1	# 2	07-03-2021 14:09	F20490002.F1
ASBE1	#2	06-03-2021 15:48	F20350002.F1
ASBE1	#2	06-03-2021 14:51	S19380004.F1
ASBE1	#2	06-03-2021 13:45	F20490002.F1
ASBE1	2	06-03-2021 12:05	F20370002.F1
ASBE1	2	06-03-2021 09:58	F20370001.F1
ASBE1	2	06-03-2021 00:03	F20280002.F1
ASBE1	D	05-03-2021 23:03	F20290003.F1
ASBE1	#2	05-03-2021 18:18	F20370001.F1
ASBE1	#2	05-03-2021 16:18	F20370002.F1
ASBE1	3	05-03-2021 09:11	F20050002.F1
ASBE1	3	05-03-2021 08:55	F20450001.F1
ASBE1	3	04-03-2021 23:33	S21040001.F1
ASBE1	#2	04-03-2021 16:18	F19410001.F1
ASBE1	#2	04-03-2021 15:17	F20100003.F1
ASBE1	2	04-03-2021 14:34	F20250005.F1
ASBE1	#2	04-03-2021 12:27	F20350003.F1
ASBE1	#3	04-03-2021 10:56	F21060001.F1
ASBE1	2	04-03-2021 06:49	F20200002.F1
ASBE1	D	04-03-2021 00:06	F20380002.F1
ASBE1	D	03-03-2021 23:34	F21050002.F1

Data Analysis Procedure

- **Cleaning**: strip whitespaces in each cell data from front & rear side.
- **Wrangling**: filter out the recipes of each equipment/chamber by name in "EquipID" column.

ASBE1

Recipes

```
[ '#D',
  ': Recipe # D',
  'TS18SL_STRIP',
  'Recipe # D.',
  'Recipe: Recipe # 2',
  'Recipe: Recipe # D',
  'F',
  'ipe # B( if in ASBE1); Recipe:TS18SLSTRIP(if in ASP Chamber of CLREML1).',
  'Recipe#7(300sec) in ASFE1,Recipe:TS18SLStrip in ASP Chamber',
  'Recipe # 4',
  '2',
  'See Remarks for recipes.',
  ': Recipe # 2',
  'Recipe # 3',
  'V2PreDUVASH',
  '# 2',
  '#1',
  'B',
  'Recipe#1',
  'test',
  'TS18SLSTRIP',
  '#3',
  '# D',
  'D',
  '# 3',
  '#6',
  '3',
  '# D.',
  '#d',
  'Recipe # D',
  'See Remark',
  'Recipe#6',
  '#2',
  'TS18SL_STRIP',
  'Recipe 1',
  'Recipe # 2',
  'TS18SLSTRIP-REML1']
```

Frequency

ASFE1

Recipes

```
[ '2,5,and 1',
  '#D',
  ': Recipe # D',
  'NOTE: After ASH, arrange wafers in corresponding slots in the wafer sorter.  Recipe: Recipe # D',
  'B D',
  'Recipe # D.',
  'Recipe: Recipe # 2',
  'Recipe: Recipe # D',
  '1902',
  'F',
  'CID_ASHING-NFM--Post',
  'Recipe # 4',
  'Recipe:2',
  '2',
  'Recipe F',
  'Recipe# 2',
  'Recipe D',
  ': Recipe # 2',
  'RecipeD',
  'ASHER1',
  'Recipe # 3',
  'Z-SIPMGC1',
  '# 2',
  'Recipe 2',
  'Recipe 3',
  '60 sec',
  '6',
  'ASH',
  'TS18SLSTRIP',
  '#3',
  '# 3',
  'D',
  '# D',
  '#6',
  'Recipe2',
  'pre duv ash',
  'Recipe: Recipe # 3',
  '3',
  '# D.',
  '#d',
  'Recipe 2',
  'Recipe 3',
  'Recipe 3',
  'Recipe D',
  'sorter.  Recipe: Recipe # D',
  '60 s',
  'NO Run',
  'RAA FI"',
  ': #2',
  'Recipe # D',
  'e# 2',
  ': Recipe # 3',
  'ASHER1--CNS Ash',
  '#2',
  '2 and 1',
  'Recipe: #2',
  'D B',
  'Recipe 2',
  'Recipe#2',
  'Recipe-2',
  'recipe D',
  'Recipe: #2',
  'e#2',
  'Recipe D',
  'd',
  'Recipe # 2',
  'Post GC Ash']
```

Frequency

REML1

Recipes

Frequency

REOX1

Recipes

Frequency

REPL1

Recipes

Frequency

RESP1

Recipes

Frequency

THANKS

