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In [1]: import pandas as pd
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```
In [2]: data = "data.csv"
df = pd.read_csv(data)
```

```
In [3]: df
```

Out[3]:

	Category of cause	sub category of cause	what when where	Value
0	Famine	Famine	Nigeria 1903-06	5000.0
1	Famine	Famine	Tanzania 1906-07	37500.0
2	Famine	Famine	West Africa 1913-14	125000.0
3	Famine	Famine	Tanzania 1917-19	30000.0
4	Famine	Famine	China 1920-21	500000.0
...
248	Leftfield	Gaming	Gaming	17.0
249	Leftfield	Football	Football	38.0
250	Leftfield	Sleeping	Sudden unexpected death syndrome	352.0
251	Leftfield	Marathons	Marathons	180.0
252	Leftfield	Mountain climbing	Mountain climbing	1809.0

253 rows × 4 columns

```
In [4]: df.dtypes
```

Out[4]: Category of cause object
sub category of cause object
what when where object
Value float64
dtype: object

```
In [5]: df.rename(columns={"Category of cause":"category","sub category of cause":"sub_category","what when where":"details","Value":"value"},inplace=True)
```

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In [6]: df["category"].unique()
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```
Out[6]: array(['Famine', 'Natural Disasters', 'Infectious Disease',  
              'Pregnancy, labour, childbirth', 'Nutritional deficiencies',  
              'Noncommunicable diseases excl. cancer', 'Cancer', 'Animals',  
              'Ideology', 'Murder', 'War', 'DRUGS', 'Accidents', 'Air pollution',  
              'Artificial Energy', 'Leftfield '], dtype=object)
```

```
In [7]: df["sub_category"].unique()
```

```
Out[7]: array(['Famine', 'Earthquakes', 'Extreme weather', 'Lightning',  
              'Volcanoes', 'Dengue', 'Diarrhoea', 'Diphtheria', 'Hepatitis B',  
              'Hepatitis C', 'HIV / AIDS', 'Leprosy', 'Malaria', 'Measles',  
              'Meningitis', 'Polio', 'Rabies', 'Respiratory infections', 'SARS',  
              'Smallpox', 'STDs excluding HIV', 'TB', 'Tetanus',  
              'Tropical diseases', 'Whooping Cough ', 'Mother', 'Baby',  
              'Birth defects', 'Nutritional deficiencies', 'Diabetes',  
              'Endocrine disorders', 'Neuropsychiatric illnesses',  
              'Cardiovascular diseases', 'Respiratory diseases',  
              'Genitourinary diseases', 'Skin diseases',  
              'Musculoskeletal diseases', 'Digestive diseases', 'Cancer',  
              'Animals', 'Communism', 'Fascism', 'Ba'athism', 'Catholicism',  
              'Democracy', 'Fighting for democracy', 'Terrorism', 'Self-murder',  
              'Genocide', 'Homicide', 'State (death penalty)',  
              'World War II 1939-45', 'World War I 1914-1918',  
              'Korean War 1950-3', 'Vietnam War 1965-73',  
              'Iran-Iraq War 1980-88', 'Afghanistan - Soviet invasion 1979-89',  
              'Mexican Revolution 1910-1920',  
              'Post-war expulsion of Germans from Eastern Europe, 1945-47',  
              'Civil wars', 'Illegal drugs', 'Tobacco', 'Alcohol',  
              'Road traffic accidents', 'Poisonings', 'Falls', 'Fires',  
              'Drownings', 'Plane crashes', 'Train crashes',  
              'Maritime disasters', 'Industrial accidents',  
              'Sporting accidents/disasters', 'Space exploration',  
              'incl. accidents involving machinery or garden tools, accidental gas explosions, suffocation',  
              'Air pollution', 'Nuclear accidents (incl. cancer deaths to date)',  
              'Fossil fuels', 'Gaming', 'Football', 'Sleeping', 'Marathons',  
              'Mountain climbing'], dtype=object)
```

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In [8]: df["category"]=df["category"].str.strip()  
df["sub_category"]=df["sub_category"].str.strip()  
df["details"]=df["details"].str.strip()
```

```
In [9]: df
```

Out[9]:

	category	sub_category	details	value
0	Famine	Famine	Nigeria 1903-06	5000.0
1	Famine	Famine	Tanzania 1906-07	37500.0
2	Famine	Famine	West Africa 1913-14	125000.0
3	Famine	Famine	Tanzania 1917-19	30000.0
4	Famine	Famine	China 1920-21	500000.0
...
248	Leftfield	Gaming	Gaming	17.0
249	Leftfield	Football	Football	38.0
250	Leftfield	Sleeping	Sudden unexpected death syndrome	352.0
251	Leftfield	Marathons	Marathons	180.0
252	Leftfield	Mountain climbing	Mountain climbing	1809.0

253 rows × 4 columns

```
In [13]: df.to_csv("20thCenturyDeath.csv",index=False)
```

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In [ ]:
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