

Nama :**ASMAWATI (2057301094****Sella Septiana (2057301091)****Kelas : 3 SIB****LAPORAN PROJEK UAS****▼ Import Software Libraries**`!pip install --upgrade category_encoders`

```

Looking in indexes: https://pypi.org/simple, https://us-python.pkg.dev/colab-wheels/public/simple/
Requirement already satisfied: category_encoders in /usr/local/lib/python3.8/dist-packages (2.6.0)
Requirement already satisfied: scikit-learn>=0.20.0 in /usr/local/lib/python3.8/dist-packages (from category_encoders) (1.0.2)
Requirement already satisfied: patsy>=0.5.1 in /usr/local/lib/python3.8/dist-packages (from category_encoders) (0.5.3)
Requirement already satisfied: pandas>=1.0.5 in /usr/local/lib/python3.8/dist-packages (from category_encoders) (1.3.5)
Requirement already satisfied: numpy>=1.14.0 in /usr/local/lib/python3.8/dist-packages (from category_encoders) (1.21.6)
Requirement already satisfied: scipy>=1.0.0 in /usr/local/lib/python3.8/dist-packages (from category_encoders) (1.7.3)
Requirement already satisfied: statsmodels>=0.9.0 in /usr/local/lib/python3.8/dist-packages (from category_encoders) (0.12.2)
Requirement already satisfied: pytz>=2017.3 in /usr/local/lib/python3.8/dist-packages (from pandas>=1.0.5->category_encoders) (2022)
Requirement already satisfied: python-dateutil>=2.7.3 in /usr/local/lib/python3.8/dist-packages (from pandas>=1.0.5->category_encoders) (2.8.2)
Requirement already satisfied: six in /usr/local/lib/python3.8/dist-packages (from patsy>=0.5.1->category_encoders) (1.15.0)
Requirement already satisfied: joblib>=0.11 in /usr/local/lib/python3.8/dist-packages (from scikit-learn>=0.20.0->category_encoders) (1.1.0)
Requirement already satisfied: threadpoolctl>=2.0.0 in /usr/local/lib/python3.8/dist-packages (from scikit-learn>=0.20.0->category_

```

▼ ANALISA

Saved successfully!

menkodekan variabel kategori menjadi numerik dengan teknik

berdasarkan menggunakan kolom mana dalam data yang dikodekan berdasarkan nama atau indeks, atau menyimpulkan kolom non-numerik apa pun jenis inputnya.

Karena belum ada library Category Encoders pada google collab maka kita install dulu dengan menggunakan `!pip install category_encoders`.

```

#Read System Parameters
import sys
#Multidimensional arrays
import numpy as np
#Manipulation and Analyze Data
import pandas as pd
#Advance Mathematical Functions
import scipy as sp
from scipy import stats
#Visualization
import matplotlib
import matplotlib.pyplot as plt
import seaborn as sns
#Features Engineering and Machine Learning Algorithm
import sklearn
from sklearn.preprocessing import StandardScaler
from sklearn.decomposition import PCA
#Encode Data and Suppress Warnings
import category_encoders as ce
import warnings
#Summarize software libraries used.
print('Libraries used in this project:')
print('- Python {}'.format(sys.version))
print('- Numpy {}'.format(np.__version__))
print('- Pandas {}'.format(pd.__version__))
print('- Scipy {}'.format(sp.__version__))
print('- Matplotlib {}'.format(matplotlib.__version__))
print('- Searborn {}'.format(sns.__version__))
print('- Scikit-Learn {}'.format(sklearn.__version__))
print('- Category Encoders {}'.format(ce.__version__))

```

```
Libraries used in this project:  
- Python 3.8.16 (default, Dec 7 2022, 01:12:13)  
[GCC 7.5.0]  
- Numpy 1.21.6  
- Pandas 1.3.5  
- Scipy 1.7.3  
- Matplotlib 3.2.2  
- Seaborn 0.11.2  
- Scikit-Learn 1.0.2  
- Category Encoders 2.6.0
```

ANALISA

1. Numpy merupakan salah satu library yang digunakan oleh library lain seperti Scikit-Learn untuk keperluan analisis data. untuk operasi vektor dan matriks.
2. Pandas dapat mengolah suatu data. Pandas digunakan untuk manipulasi dan analisis data.
3. SciPy atau Scientific Python digunakan untuk masalah matematika, sains, dan teknik yang kompleks.
4. Matplotlib digunakan untuk membuat visualisasi data yang statis, animasi, dan interaktif.
5. Seaborn digunakan untuk visualisasi data statistik digunakan pada data frame dan array. Selain itu, Seaborn juga berfungsi untuk plot dasar– grafik batang, grafik garis, dan diagram lingkaran.
6. Scikit-Learn Menampilkan algoritma klasifikasi, regresi, dan pengelompokan, berfungsi untuk menangani standard machine learning dan aplikasi penambangan data.

▼ Load and preview the data

Saved successfully!



```
from google.colab import files  
files.upload()
```



Choose Files titanic-passenger-list.csv

- titanic-passenger-list.csv(text/csv) - 112318 bytes, last modified: 1/17/2023 - 100% done

Saving titanic-passenger-list.csv to titanic-passenger-list (2).csv

{'titanic-passenger-list.csv':

```
b'userid,pclass,survived,name,sex,age,sibsp,parch,ticket,fare,cabin,embarked,boat,body,home.dest\nM0001,1,1,"Allen, Miss. Elisabeth Walton",female,29,0,0,24160,211.3375,B5,S,2,,,"St Louis, MO"\nM0002,1,1,"Allison, Master. Hudson Trevor",male,0.92,1,2,113781,151.55,C22 C26,S,11,,,"Montreal, PQ / Chesterville, ON"\nM0003,1,0,"Allison, Miss. Helen Lora\u0002ne",female,2,1,2,113781,151.55,C22 C26,S,,,"Montreal, PQ / Chesterville, ON"\nM0004,1,0,"Allison, Mr. Hudson Joshua Creighton",male,30,1,2,113781,151.55,C22 C26,S,,135,"Montreal, PQ / Chesterville, ON"\nM0005,1,0,"Allison, Mrs. Hudson J C (Bessie Waldo Daniels)",female,25,1,2,113781,151.55,C22 C26,S,,,"Montreal, PQ / Chesterville, ON"\nM0006,1,1,"Anderson, Mr. Harry",male,48,0,0,19952,26.55,E12,S,3,,,"New York, NY"\nM0007,1,1,"Andrews, Miss. Kornelia Theodosia",female,63,1,0,13502,77.9583,D7,S,10,,,"Hudson, NY"\nM0008,1,0,"Andrews, Mr. Thomas Jr",male,39,0,0,112050,0,A36,S,,,"Belfast, NI"\nM0009,1,1,"Appleton, Mrs. Edward Dale (Charlotte Lamson)",female,53,2,0,11769,51.4792,C101,S,D,,,"Bayside, Queens, NY"\nM0010,1,0,"Artagaveytia, Mr. Ramon",male,71,0,0,PC 17609,49.5042,,C,22,"Montevideo, Uruguay"\nM0011,1,0,"Astor, Col. John Jacob",male,47,1,0,PC 17757,227.525,C62 C64,C,,124,"New York, NY"\nM0012,1,1,"Astor, Mrs. John Jacob (Madeleine Talmadge Force)",female,18,1,0,PC 17757,227.525,C62 C64,C,4,,,"New York, NY"\nM0013,1,1,"Aubart, Mme. Leontine Pauline",female,24,0,0,PC 17477,69.3,B35,C,9,,,"Paris, France"\nM0014,1,1,"Barber, Miss. Ellen ""Nellie""",female,26,0,0,19877,78.85,,S,6,,\nM0015,1,1,"Barkworth, Mr. Algernon Henry Wilson",male,80,0,0,27042,30,A23,S,B,,,"Hessle, Yorks"\nM0016,1,0,"Baumann, Mr. John D",male,,0,0,PC 17318,25.925,,S,,,"New York, NY"\nM0017,1,0,"Baxter, Mr. Quigg Edmond",male,24,0,1,PC 17558,247.5208,B58 B60,C,6,,,"Montreal, PQ"\nM0018,1,1,"Baxter, Mrs. James (Helene DeLauniere Chaput)",female,50,0,1,PC 17558,247.5208,B58 B60,C,6,,,"Montreal, PQ"\nM0019,1,1,"Bazzani, Miss. Albina",female,32,0,0,11813,76.2917,D15,C,8,,\nM0020,1,0,"Beattie, Mr. Thomson",male,36,0,0,13050,75.2417,C6,C,A,,,"Winnipeg, MN"\nM0021,1,1,"Beckwith, Mr. Richard Leonard",male,37,1,1,11751,52.5542,D35,S,5,,,"New York, NY"\nM0022,1,1,"Beckwith, Mrs. Richard Leonard (Sallie Monypeny)",female,47,1,1,11751,52.5542,D35,S,5,,,"New York, NY"\nM0023,1,1,"Behr, Mr. Karl Howell",male,26,0,0,111369,30,C148,C,5,,,"New York, NY"\nM0024,1,1,"Bidois, Miss. Rosalie",female,42,0,0,PC 17757,227.525,,C,4,,\nM0025,1,1,"Bird, Miss. Ellen",female,29,0,0,PC 17483,221.7792,C97,S,8,,\nM0026,1,0,"Birnbaum, Mr. Jakob",male,25,0,0,13905,26,,C,148,"San Francisco, CA"\nM0027,1,1,"Bishop, Mr. Dickinson H",male,25,1,0,11967,91.0792,B49,C,7,,,"Dowagiac, MI"\nM0028,1,1,"Bishop, Mrs. Dickinson H (Helen Walton)",female,19,1,0,11967,91.0792,B49,C,7,,,"Dowagiac, MI"\nM0029,1,1,"Bissette, Miss. Amelia",female,35,0,0,PC 17760,135.6333,C99,S,8,,\nM0030,1,1,"Bjornstrom-Steffansson, Mr. Mauritz Hakan",male,28,0,0,110564,26.55,C52,S,D,,,"Stockholm, Sweden / Washington, DC"\nM0031,1,0,"Blackwell, Mr. Stephen Wear",male,45,0,0,113784,35.5,T,S,,,"Trenton, NJ"\nM0032,1,1,"Blank, Mr. Henry",male,40,0,0,112277,31,A31,C,7,,,"Glen Ridge, NJ"\nM0033,1,1,"Bonnell, Miss. Caroline",female,30,0,0,36928,164.8667,C7,S,8,,,"Youngstown, OH"\nM0034,1,1,"Bonnell, Miss. Elizabeth",female,58,0,0,113783,26.55,C103,S,8,,,"Birkdale, England Cleveland, Ohio"\nM0035,1,0,"Borebank, Mr. John James",male,42,0,0,110489,26.55,D22,S,,,"London / Winnipeg, MB"\nM0036,1,1,"Bowen, Miss. Grace Scott",female,45,0,0,PC 17608,262.375,,C,4,,,"Cooperstown, NY"\nM0037,1,1,"Bowerman, Miss. Elsie Edith",female,22,0,1,113505,55,E33,S,6,,,"St Leonards-on-Sea, England Ohio"\nM0038,1,1,"Bradley, Mr. George (""George Arthur Brayton"")",male,,0,0,111427,26.55,,S,9,,,"Los Angeles, CA"\nM0039,1,0,"Brady, Mr. John Bertram",male,41,0,0,113054,30.5,A21,S,,,"Pomeroy, WA"\nM0040,1,0,"Brandeis, Mr. Emil",male,48,0,0,PC 17591,50.4958,B10,C,,208,"Omaha, NE"\nM0041,1,0,"Brewer, Dr. Arthur Jackson",male,,0,0,112379,39.6,,C,,,"Philadelphia, PA"\nM0042,1,1,"Brown, Mrs. James Joseph (Margaret Tobin)",female,44,0,0,PC 17610,27.7208,B4,C,6,,,"Denver, CO"\nM0043,1,1,"Brown, Mrs. John Murray (Caroline Lane Lamson)",female,59,2,0,11769,51.4792,C101,S,D,,,"Belmont, MA"\nM0044,1,1,"Bucknell, Mrs. William Robert (Emma Eliza Ward)",female,60,0,0,11813,76.2917,D15,C,8,,,"Philadelphia, PA"\nM0045,1,1,"Burns, Miss. Elizabeth",female,34,5,E40,C,3,,\nM0046,1,0,"Butt, Major. Archibald",male,26,55,B38,S,,,"Washington, DC"\nM0047,1,0,"Cairns, Mr. James",male,,0,0,112048,1,1,"Calderhead, Mr. Edward Pennington",male,42,0,0,PC 17476,26.2875,E24,S,5,,,"New York, NY"\nM0049,1,1,"Candee, Mrs. Edward (Helen Churchill Hungerford)",female,53,0,0,PC 17606,27.4458,,C,6,,,"Washington, DC"\nM0050,1,1,"Cardeza, Mr. Thomas Drake Martinez",male,36,0,0,PC 17755,512.3292,B51 B53 B55,C,3,,,"Austria-Hungary / Germantown, Philadelphia, PA"\nM0051,1,1,"Cardeza, Mrs. James Warburton Martinez (Charlotte Wardle Drake)",female,58,0,1,PC 17755,512.3292,B51 B53 B55,C,3,,,"Germantown, Philadelphia, PA"\nM0052,1,0,"Carlsson, Mr. Frans Olof",male,33,0,0,695,5,B51 B53 B55,S,,,"New York, NY"\nM0053,1,0,"Carrau, Mr. Francisco M",male,28,0,0,113059,47.1,,S,,,"Montevideo, Uruguay"\nM0054,1,0,"Carrau, Mr. Jose Pedro",male,17,0,0,113059,47.1,,S,,,"Montevideo, Uruguay"\nM0055,1,1,"Carter, Master. William Thornton II",male,11,1,2,113760,120,B96 B98,S,4,,,"Bryn Mawr, PA"\nM0056,1,1,"Carter, Miss. Lucile Polk",female,14,1,2,113760,120,B96 B98,S,4,,,"Bryn Mawr, PA"\nM0057,1,1,"Carter, Mr. William Ernest",male,36,1,2,113760,120,B96 B98,S,C,,,"Bryn Mawr, PA"\nM0058,1,1,"Carter, Mrs. William Ernest (Lucile Polk)",female,36,1,2,113760,120,B96 B98,S,4,,,"Bryn Mawr, PA"\nM0059,1,0,"Case, Mr. Howard Brown",male,49,0,0,19924,26,,S,,,"Ascot, Berkshire / Rochester, NY"\nM0060,1,1,"Cassebeer, Mrs. Henry Arthur Jr (Eleanor Genevieve Fosdick)",female,,0,0,17770,27.7208,,C,5,,,"New York, NY"\nM0061,1,0,"Cavendish, Mr. Tyrell William",male,36,1,0,19877,78.85,C46,S,172,"Little Onn Hall, Staffs"\nM0062,1,1,"Cavendish, Mrs. Tyrell William (Julia Florence Siegel)",female,76,1,0,19877,78.85,C46,S,6,,,"Little Onn Hall, Staffs"\nM0063,1,0,"Chaffee, Mr. Herbert Fuller",male,46,1,0,W.E.P. 5734,61.175,E31,S,,,"Amenia, ND"\nM0064,1,1,"Chaffee, Mrs. Herbert Fuller (Carrie Constance Toogood)",female,47,1,0,W.E.P. 5734,61.175,E31,S,4,,,"Amenia, ND"\nM0065,1,1,"Chambers, Mr. Norman Campbell",male,27,1,0,113806,53.1,E8,S,5,,,"New York, NY / Ithaca, NY"\nM0066,1,1,"Chambers, Mrs. Norman Campbell (Bertha Griggs)",female,33,1,0,113806,53.1,E8,S,5,,,"New York, NY / Ithaca, NY"\nM0067,1,1,"Chaudanson, Miss. Victorine",female,36,0,0,PC 17608,262.375,B61,C,4,,\nM0068,1,1,"Cherry, Miss. Gladys",female,30,0,0,110152,86.5,B77,S,8,,,"London, England"\nM0069,1,1,"Chevre, Mr. Paul Romaine",male,45,0,0,PC 17594,29.7,A9,C,7,,,"Paris, France"\nM0070,1,1,"Chibnall, Mrs. (Edith Martha Bowerman)",female,,0,1,113505,55,E33,S,6,,,"St Leonards-on-Sea, England Ohio"\nM0071,1,0,"Chisholm, Mr. Roderick Robert Crispin",male,,0,0,112051,0,,S,,,"Liverpool, England / Belfast"\nM0072,1,0,"Clark, Mr. Walter Miller",male,27,1,0,13508,136.7792,C89,C,,,"Los Angeles, CA"\nM0073,1,1,"Clark, Mrs. Walter Miller (Virginia McDowell)",female,26,1,0,13508,136.7792,C89,C,4,,,"Los Angeles, CA"\nM0074,1,1,"Cleaver, Miss. Alice",female,22,0,0,113781,151.55,,S,11,,\nM0075,1,0,"Clifford, Mr. George Quincy",male,,0,0,110465,52,A14,S,,,"Stoughton, MA"\nM0076,1,0,"Colley, Mr. Edward Pomeroy",male,47,0,0,5727,25.5875,E58,S,,,"Victoria, BC"\nM0077,1,1,"Compton, Miss. Sara Rebecca",female,39,1,1,PC 17756,83.1583,E49,C,14,,,"Lakewood, NJ"\nM0078,1,0,"Compton, Mr. Alexander Taylor Jr",male,37,1,1,PC 17756,83.1583,E52,C,,,"Lakewood, NJ"\nM0079,1,1,"Compton, Mrs. Alexander Taylor (Mary Eliza Ingersoll)",female,64,0,2,PC 17756,83.1583,E45,C,14,,,"Lakewood, NJ"\nM0080,1,1,"Cornell, Mrs. Robert Clifford (Malvina Helen Lamson)",female,55,2,0,11770,25.7,C101,S,2,,,"New York, NY"\nM0081,1,0,"Crafton, Mr. John Bertram",male,,0,0,113791,26.55,,S,,,"Roachdale, IN"\nM0082,1,0,"Crosby, Capt. Edward Gifford",male,70,1,1,WE/P 5735,71,B22,S,,269,"Milwaukee, WI"\nM0083,1,1,"Crosby, Miss. Harriet R",female,36,0,2,WE/P 5735,71,B22,S,7,,,"Milwaukee, WI"\nM0084,1,1,"Crosby, Mrs. Edward Gifford (Catherine Elizabeth Halstead)",female,64,1,1,112901,26.55,B26,S,7,,,"Milwaukee, WI"\nM0085,1,0,"Cumings, Mr. John Bradley",male,39,1,0,PC 17599,71.2833,C85,C,,,"New York, NY"\nM0086,1,1,"Cumings, Mrs. John Bradley (Florence Briggs Thayer)",female,38,1,0,PC 17599,71.2833,C85,C,4,,,"New York, NY"\nM0087,1,1,"Daly, Mr. Peter Denis",male,51,0,0,113055,26.55,E17,S,5,9,,,"Lima, Peru"\nM0088,1,1,"Daniel, Mr. Robert Williams",male,27,0,0,113804,30.5,,S,3,,,"Philadelphia, PA"\nM0089,1,1,"Daniels, Miss. Sarah",female,33,0,0,113781,151.55,,S,8,,\nM0090,1,0,"Davidson, Mr. Thornton",male,31,1,0,F.C. 12750,52,B71,S,,,"Montreal, PQ"\nM0091,1,1,"Davidson, Mrs. Thornton (Orian Hays)",female,27,1,2,F.C. 12750,52,B71,S,3,,,"Montreal, PQ"\nM0092,1,1,"Dick, Mr. Albert Adrian",male,31,1,0,17474,57,B20,S,3,,,"Calgary, AB"\nM0093,1,1,"Dick, Mrs. Albert Adrian (Vera Gillespie)",female,17,1,0,17474,57,B20,S,3,,,"Calgary, AB"\nM0094,1,1,"Dodge, Dr. Washington",male,53,1,1,33638,81.8583,A34,S,13,,,"San Francisco, CA"\nM0095,1,1,"Dodge, Master. Washington",male,4,0,2,33638,81.8583,A34,S,5,,,"San Francisco, CA"\nM0096,1,1,"Dodge, Mrs. Washington (Ruth Vidaver)",female,54,1,1,33638,81.8583,A34,S,5,,,"San Francisco, CA"\nM0097,1,0,"Douglas, Mr. Walter Donald",male,50,1,0,PC 17761,106.425,C86,C,,62,"Deephaven, MN / Cedar Rapids, IA"\nM0098,1,1,"Douglas, Mrs. Frederick Charles (Mary Helene Baxter)",female,27,1,1,PC 17558,247.5208,B58 B60,C,6,,,"Montreal, PQ"\nM0099,1,1,"Douglas, Mrs. Walter Donald (Mahala
```

Dutton)", female, 48, 1, 0, PC 17761, 106.425, C86, C, 2, "Deephaven, MN / Cedar Rapids, IA"\nM0100, 1, 1, "Duff Gordon, Lady. (Lucille Christiana Sutherland) ("Mrs Morgan")", female, 48, 1, 0, 11755, 39.6, A16, C, 1, London / Paris\nM0101, 1, 1, "Duff Gordon, Sir. Cosmo Edmund ("Mr Morgan")", male, 49, 1, 0, PC 17485, 56.9292, A20, C, 1, London / Paris\nM0102, 1, 0, "Dulles, Mr. William Crothers", male, 39, 0, 0, PC 17580, 29.7, A18, C, 1, 133, "Philadelphia, PA"\nM0103, 1, 1, "Earnshaw, Mrs. Boulton (Olive Potter)", female, 23, 0, 1, 11767, 83.1583, C54, C, 7, "Mt Airy, Philadelphia, PA"\nM0104, 1, 1, "Endres, Miss. Caroline Louise", female, 38, 0, 0, PC 17757, 227.525, C45, C, 4, "New York, NY"\nM0105, 1, 1, "Eustis, Miss. Elizabeth Mussey", female, 54, 1, 0, 36947, 78.2667, D20, C, 4, "Brookline, MA"\nM0106, 1, 0, "Evans, Miss. Edith Corse", female, 36, 0, 0, PC 17531, 31.6792, A29, C, "New York, NY"\nM0107, 1, 0, "Farthing, Mr. John", male, 0, 0, PC 17483, 221.7792, C95, S, "nM0108, 1, 1, "Flegenheim, Mrs. Alfred (Antoinette)", female, 0, 0, PC 17598, 31.6833, S, 7, "New York, NY"\nM0109, 1, 1, "Fleming, Miss. Margaret", female, 0, 0, 17421, 110.8833, C, 4, "nM0110, 1, 1, "Flynn, Mr. John Irwin ("Irving")", male, 36, 0, 0, PC 17474, 26.3875, E25, S, 5, "Brooklyn, NY"\nM0111, 1, 0, "Foreman, Mr. Benjamin Laventall", male, 30, 0, 0, 113051, 27.75, C111, C, "New York, NY"\nM0112, 1, 1, "Fortune, Miss. Alice Elizabeth", female, 24, 3, 2, 19950, 263, C23 C25 C27, S, 10, "Winnipeg, MB"\nM0113, 1, 1, "Fortune, Miss. Ethel Flora", female, 28, 3, 2, 19950, 263, C23 C25 C27, S, 10, "Winnipeg, MB"\nM0114, 1, 1, "Fortune, Miss. Mabel Helen", female, 23, 3, 2, 19950, 263, C23 C25 C27, S, 10, "Winnipeg, MB"\nM0115, 1, 0, "Fortune, Mr. Charles Alexander", male, 19, 3, 2, 19950, 263, C23 C25 C27, S, "Winnipeg, MB"\nM0116, 1, 0, "Fortune, Mr. Mark", male, 64, 1, 4, 19950, 263, C23 C25 C27, S, "Winnipeg, MB"\nM0117, 1, 1, "Fortune, Mrs. Mark (Mary McDougald)", female, 60, 1, 4, 19950, 263, C23 C25 C27, S, 10, "Winnipeg, MB"\nM0118, 1, 1, "Francatelli, Miss. Laura Mabel", female, 30, 0, 0, PC 17485, 56.9292, E36, C, 1, "nM0119, 1, 0, "Franklin, Mr. Thomas Parham", male, 0, 0, 113778, 26.55, D34, S, "Westcliff-on-Sea, Essex"\nM0120, 1, 1, "Frauenthal, Dr. Henry William", male, 50, 2, 0, PC 17611, 133.65, S, 5, "New York, NY"\nM0121, 1, 1, "Frauenthal, Mr. Isaac Gerald", male, 43, 1, 0, 17765, 27.7208, D40, C, 5, "New York, NY"\nM0122, 1, 1, "Frauenthal, Mrs. Henry William (Clara Heinsheimer)", female, 1, 0, PC 17611, 133.65, S, 5, "New York, NY"\nM0123, 1, 1, "Frolicher, Miss. Hedwig Margaritha", female, 22, 0, 2, 13568, 49.5, B39, C, 5, "Zurich, Switzerland"\nM0124, 1, 1, "Frolicher-Stehli, Mr. Maxmillian", male, 60, 1, 1, 13567, 79.2, B41, C, 5, "Zurich, Switzerland"\nM0125, 1, 1, "Frolicher-Stehli, Mrs. Maxmillian (Margaretha Emmentia Stehli)", female, 48, 1, 1, 13567, 79.2, B41, C, 5, "Zurich, Switzerland"\nM0126, 1, 0, "Fry, Mr. Richard", male, 0, 0, 112058, 0, B102, S, "nM0127, 1, 0, "Futrelle, Mr. Jacques Heath", male, 37, 1, 0, 113803, 53.1, C123, S, "Scituate, MA"\nM0128, 1, 1, "Futrelle, Mrs. Jacques Heath (Lily May Peel)", female, 35, 1, 0, 113803, 53.1, C123, S, D, "Scituate, MA"\nM0129, 1, 0, "Gee, Mr. Arthur H", male, 47, 0, 0, 111320, 38.5, E63, S, 275, "St Anne's-on-Sea, Lancashire"\nM0130, 1, 1, "Geiger, Miss. Amalie", female, 35, 0, 0, 113503, 211.5, C130, C, 4, "nM0131, 1, 1, "Gibson, Miss. Dorothy Winifred", female, 22, 0, 1, 112378, 59.4, C, 7, "New York, NY"\nM0132, 1, 1, "Gibson, Mrs. Leonard (Pauline C Boeson)", female, 45, 0, 1, 112378, 59.4, C, 7, "New York, NY"\nM0133, 1, 0, "Giglio, Mr. Victor", male, 24, 0, 0, PC 17593, 79.2, B86, C, "nM0134, 1, 1, "Goldenberg, Mr. Samuel L", male, 49, 1, 0, 17453, 89.1042, C92, C, 5, "Paris, France / New York, NY"\nM0135, 1, 1, "Goldenberg, Mrs. Samuel L (Edwiga Grabowska)", female, 1, 0, 17453, 89.1042, C92, C, 5, "Paris, France / New York, NY"\nM0136, 1, 0, "Goldschmidt, Mr. George B", male, 71, 0, 0, PC 17754, 34.6542, A5, C, "New York, NY"\nM0137, 1, 1, "Gracie, Col. Archibald IV", male, 53, 0, 0, 113780, 28.5, C51, C, B, "Washington, DC"\nM0138, 1, 1, "Graham, Miss. Margaret Edith", female, 19, 0, 0, 112053, 30, B42, S, 3, "Greenwich, CT"\nM0139, 1, 0, "Graham, Mr. George Edward", male, 38, 0, 1, PC 17582, 153.4625, C91, S, 147, "Winnipeg, MB"\nM0140, 1, 1, "Graham, Mrs. William Thompson (Edith Jenkins)", female, 58, 0, 1, PC 17582, 153.4625, C125, S, 3, "Greenwich, CT"\nM0141, 1, 1, "Greenfield, Mr. William Bertram", male, 23, 0, 1, PC 17759, 63.3583, D10 D12, C, 7, "New York, NY"\nM0142, 1, 1, "Greenfield, Mrs. Leo David (Blanche Strouse)", female, 45, 0, 1, PC 17759, 63.3583, D10 D12, C, 7, "New York, NY"\nM0143, 1, 0, "Guggenheim, Mr. Benjamin", male, 46, 0, 0, PC 17593, 79.2, B82 B84, C, "New York, NY"\nM0144, 1, 1, "Harder, Mr. George Achilles", male, 25, 1, 0, 11765, 55.4417, E50, C, 5, "Brooklyn, NY"\nM0145, 1, 1, "Harder, Mrs. George Achilles (Dorothy Annan)", female, 25, 1, 0, 11765, 55.4417, E50, C, 5, "Brooklyn, NY"\nM0146, 1, 1, "Harper, Mr. Henry Sleeper", male, 48, 1, 0, PC 17572, 76.7292, D33, C, 3, "New York, NY"\nM0147, 1, 1, "Harper, Mrs. Henry Sleeper (Myna Haxton)", female, 49, 1, 0, PC 17572, 76.7292, D33, C, 3, "New York, NY"\nM0148, 1, 0, "Harrington, Mr. Charles H", male, 0, 0, 113796, 42.4, S, "nM0149, 1, 0, "Harris, Mr. Henry Birkhardt", male, 45, 1, 0, 36973, 83.475, C83, S, "New York, NY"\nM0150, 1, 1, "Harris, Mrs. Henry Birkhardt (Irene Wallach)", female, 35, 1, 0, 36973, 83.475, C83, S, D, "New York, NY"\nM0151, 1, 0, "Harrison, Mr. William", male, 40, 0, 0, 112050, 0, B94, S, 110, "nM0152, 1, 1, "Hassab, Mr. Hammad", male, 27, 0, 0, PC 1, 1, "Hawksford, Mr. Walter James", male, 0, 0, 16988, 30, D45, S, 3, "Kingston, Surrey"\nM0154, 1, 1, "Hays, e, 24, 0, 0, 11767, 83.1583, C54, C, 7, "New York, NY"\nM0155, 1, 0, "Hays, Mr. Charles Melville", male, 55, 1, 1, 12749, 93.5, B69, S, 307, "Montreal, PQ"\nM0156, 1, 1, "Hays, Mrs. Charles Melville (Clara Jennings Gregg)", female, 52, 1, 1, 12749, 93.5, B69, S, 3, "Montreal, PQ"\nM0157, 1, 0, "Head, Mr. Christopher", male, 42, 0, 0, 113038, 42.5, B11, S, "London / Middlesex"\nM0158, 1, 0, "Hilliard, Mr. Herbert Henry", male, 0, 0, 17463, 51.8625, E46, S, "Brighton, MA"\nM0159, 1, 0, "Hipkins, Mr. William Edward", male, 55, 0, 0, 680, 50, C39, S, "London / Birmingham"\nM0160, 1, 1, "Hippach, Miss. Jean Gertrude", female, 16, 0, 1, 111361, 57.9792, B18, C, 4, "Chicago, IL"\nM0161, 1, 1, "Hippach, Mrs. Louis Albert (Ida Sophia Fischer)", female, 44, 0, 1, 111361, 57.9792, B18, C, 4, "Chicago, IL"\nM0162, 1, 1, "Hogeboom, Mrs. John C (Anna Andrews)", female, 51, 1, 0, 13502, 77.9583, D11, S, 10, "Hudson, NY"\nM0163, 1, 0, "Holverson, Mr. Alexander Oskar", male, 42, 1, 0, 113789, 52, S, 38, "New York, NY"\nM0164, 1, 1, "Holverson, Mrs. Alexander Oskar (Mary Aline Towner)", female, 35, 1, 0, 113789, 52, S, 8, "New York, NY"\nM0165, 1, 1, "Homer, Mr. Harry ("Mr E Haven")", male, 35, 0, 0, 111426, 26.55, C, 15, "Indianapolis, IN"\nM0166, 1, 1, "Hoyt, Mr. Frederick Maxfield", male, 38, 1, 0, 19943, 90, C93, S, D, "New York, NY / Stamford CT"\nM0167, 1, 0, "Hoyt, Mr. William Fisher", male, 0, 0, PC 17600, 30.6958, C, 14, "New York, NY"\nM0168, 1, 1, "Hoyt, Mrs. Frederick Maxfield (Jane Anne Forby)", female, 35, 1, 0, 19943, 90, C93, S, D, "New York, NY / Stamford CT"\nM0169, 1, 1, "Icard, Miss. Amelie", female, 38, 0, 0, 113572, 80, B28, 6, "nM0170, 1, 0, "Isham, Miss. Ann Elizabeth", female, 50, 0, 0, PC 17595, 28.7125, C49, C, "Paris, France New York, NY"\nM0171, 1, 1, "Ismay, Mr. Joseph Bruce", male, 49, 0, 0, 112058, 0, B52 B54 B56, S, C, "Liverpool"\nM0172, 1, 0, "Jones, Mr. Charles Cresson", male, 46, 0, 0, 694, 26, S, 80, "Bennington, VT"\nM0173, 1, 0, "Julian, Mr. Henry Forbes", male, 50, 0, 0, 113044, 26, E60, S, "London"\nM0174, 1, 0, "Keeping, Mr. Edwin", male, 32, 5, 0, 0, 113503, 211.5, C132, C, 45, "nM0175, 1, 0, "Kent, Mr. Edward Austin", male, 58, 0, 0, 11771, 29.7, B37, C, 258, "Buffalo, NY"\nM0176, 1, 0, "Kenyon, Mr. Frederick R", male, 41, 1, 0, 17464, 51.8625, D21, S, "Southington / Noank, CT"\nM0177, 1, 1, "Kenyon, Mrs. Frederick R (Marion)", female, 1, 0, 17464, 51.8625, D21, S, 8, "Southington / Noank, CT"\nM0178, 1, 1, "Kimball, Mr. Edwin Nelson Jr", male, 42, 1, 0, 11753, 52.5542, D19, S, 5, "Boston, MA"\nM0179, 1, 1, "Kimball, Mrs. Edwin Nelson Jr (Gertrude Parsons)", female, 45, 1, 0, 11753, 52.5542, D19, S, 5, "Boston, MA"\nM0180, 1, 0, "Klaber, Mr. Herman", male, 0, 0, 113028, 26.55, C124, S, "Portland, OR"\nM0181, 1, 1, "Kreuchen, Miss. Emilie", female, 39, 0, 0, 24160, 211.3375, S, 2, "nM0182, 1, 1, "Leader, Dr. Edna (Farnham)", female, 49, 0, 0, 17465, 25.9292, D17, S, 8, "New York, NY"\nM0183, 1, 1, "LeRoy, Miss. Bertha", female, 30, 0, 0, PC 17761, 106.425, C, 2, "nM0184, 1, 1, "Lesurer, Mr. Gustave J", male, 35, 0, 0, PC 17755, 512.3292, B101, C, 3, "nM0185, 1, 0, "Lewy, Mr. Ervin G", male, 0, 0, PC 17612, 27.7208, C, "Chicago, IL"\nM0186, 1, 0, "Lindeberg-Lind, Mr. Erik Gustaf ("Mr Edward Lingrey")", male, 42, 0, 0, 17475, 26.55, S, "Stockholm, Sweden"\nM0187, 1, 1, "Lindstrom, Mrs. Carl Johan (Sigrid Posse)", female, 55, 0, 0, 112377, 27.7208, C, 6, "Stockholm, Sweden"\nM0188, 1, 1, "Lines, Miss. Mary Conover", female, 16, 0, 1, PC 17592, 39.4, D28, S, 9, "Paris, France"\nM0189, 1, 1, "Lines, Mrs. Ernest H (Elizabeth Lindsey James)", female, 51, 0, 1, PC 17592, 39.4, D28, S, 9, "Paris, France"\nM0190, 1, 0, "Long, Mr. Milton Clyde", male, 29, 0, 0, 113501, 30, D6, S, 126, "Springfield, MA"\nM0191, 1, 1, "Longley, Miss. Gretchen Fiske", female, 21, 0, 0, 13502, 77.9583, D9, S, 10, "Hudson, NY"\nM0192, 1, 0, "Loring, Mr. Joseph Holland", male, 30, 0, 0, 113801, 45.5, S, "London / New York, NY"\nM0193, 1, 1, "Lurette, Miss. Elise", female, 58, 0, 0, PC 17569, 146.5208, B80, C, "nM0194, 1, 1, "Madill, Miss. Georgette Alexandra", female, 15, 0, 1, 24160, 211.3375, B5, S, 2, "St Louis, MO"\nM0195, 1, 0, "Maguire, Mr. John Edward", male, 30, 0, 0, 110469, 26, C106, S, "Brockton, MA"\nM0196, 1, 1, "Maioni, Miss. Roberta", female, 16, 0, 0, 110152, 86.5, B79, S, 8, "nM0197, 1, 1, "Marechal, Mr. Pierre", male, 0, 0, 11774, 29.7, C47, C, 7, "Paris, France"\nM0198, 1, 0, "Marvin, Mr. Daniel Warner", male, 19, 1, 0, 113773, 53.1, D30, S, "New York, NY"\nM0199, 1, 1, "Marvin, Mrs. Daniel Warner (Mary Graham Carmichael Farquarson)", female, 18, 1, 0, 113773, 53.1, D30, S, 10, "New York, NY"\nM0200, 1, 1, "Mayne, Mlle. Berthe Antonine ("Mrs de Villiers")", female, 24, 0, 0, PC 17482, 49.5042, C90, C, 6, "Belgium Montreal, PQ"\nM0201, 1, 0, "McCaffry, Mr. Thomas Francis", male, 46, 0, 0, 13050, 75.2417, C6, C, 292, "Vancouver, BC"\nM0202, 1, 0, "McCarthy, Mr. Timothy J", male, 54, 0, 0, 17463, 51.8625, E46, S, 175, "Dorchester, MA"\nM0203, 1, 1, "McGough, Mr. James Robert", male, 36, 0, 0, PC 17473, 26.2875, E25, S, 7, "Philadelphia, PA"\nM0204, 1, 0, "Meyer, Mr. Edgar Joseph", male, 28, 1, 0, PC 17604, 82.1708, C, "New York, NY"\nM0205, 1, 1, "Meyer, Mrs. Edgar Joseph (Leila Saks)", female, 1, 0, PC 17604, 82.1708, C, 6, "New York, NY"\nM0206, 1, 0, "Millet, Mr. Francis Davis", male, 65, 0, 0, 13509, 26.55, E38, S, 249, "East Bridgewater, MA"\nM0207, 1, 0, "Minahan, Dr. William

Edward",male,44,2,0,19928,90,C78,Q,230,"Fond du Lac, WI"\nM0208,1,1,"Minahan, Miss. Daisy E",female,33,1,0,19928,90,C78,Q,14,,,"Green Bay, WI"\nM0209,1,1,"Minahan, Mrs. William Edward (Lillian E Thorpe)",female,37,1,0,19928,90,C78,Q,14,,,"Fond du Lac, WI"\nM0210,1,1,"Mock, Mr. Philipp Edmund",male,30,1,0,13236,57.75,C78,C,11,,,"New York, NY"\nM0211,1,0,"Molson, Mr. Harry Markland",male,55,0,0,113787,30.5,C30,S,,,"Montreal, PQ"\nM0212,1,0,"Moore, Mr. Clarence Bloomfield",male,47,0,0,113796,42.4,,S,,,"Washington, DC"\nM0213,1,0,"Natsch, Mr. Charles H",male,37,0,1,PC 17596,29.7,C118,C,,,"Brooklyn, NY"\nM0214,1,1,"Newell, Miss. Madeleine",female,31,1,0,35273,113.275,D36,C,6,,,"Lexington, MA"\nM0215,1,1,"Newell, Miss. Marjorie",female,23,1,0,35273,113.275,D36,C,6,,,"Lexington, MA"\nM0216,1,0,"Newell, Mr. Arthur Webster",male,58,0,2,35273,113.275,D48,C,,122,"Lexington, MA"\nM0217,1,1,"Newsom, Miss. Helen Monypeny",female,19,0,2,11752,26.2833,D47,S,5,,,"New York, NY"\nM0218,1,0,"Nicholson, Mr. Arthur Ernest",male,64,0,0,693,26,,S,,263,"Isle of Wight, England"\nM0219,1,1,"Oliva y Ocana, Dona. Fermina",female,39,0,0,PC 17758,108.9,C105,C,8,,,"Omont, Mr. Alfred Fernand",male,0,0,F.C. 12998,25.7417,,C,7,,,"Paris, France"\nM0221,1,1,"Ostby, Miss. Helene Ragnhild",female,22,0,1,113509,61.9792,B36,C,5,,,"Providence, RI"\nM0222,1,0,"Ostby, Mr. Engelhart Cornelius",male,65,0,1,113509,61.9792,B30,C,,234,"Providence, RI"\nM0223,1,0,"Ovies y Rodriguez, Mr. Servando",male,28.5,0,0,PC 17562,27.7208,D43,C,189,,,"Havana, Cuba"\nM0224,1,0,"Parr, Mr. William Henry Marsh",male,0,0,112052,0,,S,,,"Belfast"\nM0225,1,0,"Partner, Mr. Austen",male,45.5,0,0,113043,28.5,C124,S,,166,"Surbiton Hill, Surrey"\nM0226,1,0,"Payne, Mr. Vivian Ponsonby",male,23,0,0,12749,93.5,B24,S,,,"Montreal, PQ"\nM0227,1,0,"Pears, Mr. Thomas Clinton",male,29,1,0,113776,66.6,C2,S,,,"Isleworth, England"\nM0228,1,1,"Pears, Mrs. Thomas (Edith Wearne)",female,22,1,0,113776,66.6,C2,S,8,,,"Isleworth, England"\nM0229,1,0,"Penasco y Castellana, Mr. Victor de Satode",male,18,1,0,PC 17758,108.9,C65,C,,,"Madrid, Spain"\nM0230,1,1,"Penasco y Castellana, Mrs. Victor de Satode (Maria Josefa Perez de Soto y Vallejo)",female,17,1,0,PC 17758,108.9,C65,C,8,,,"Madrid, Spain"\nM0231,1,1,"Perreault, Miss. Anne",female,30,0,0,12749,93.5,B73,S,3,,,"Peuchen, Major. Arthur Godfrey",male,52,0,0,113786,30.5,C104,S,6,,,"Toronto, ON"\nM0233,1,0,"Porter, Mr. Walter Chamberlain",male,47,0,0,110465,52,C110,S,,207,"Worcester, MA"\nM0234,1,1,"Potter, Mrs. Thomas Jr (Lily Alexenia Wilson)",female,56,0,1,11767,83.1583,C50,C,7,,,"Mt Airy, Philadelphia, PA"\nM0235,1,0,"Reuchlin, Jonkheer. John George",male,38,0,0,19972,0,,S,,,"Rotterdam, Netherlands"\nM0236,1,1,"Rheims, Mr. George Alexander Lucien",male,0,0,PC 17607,39.6,,S,A,,,"Paris / New York, NY"\nM0237,1,0,"Ringhini, Mr. Sante",male,22,0,0,PC 17760,135.6333,,C,,232,"nM0238,1,0,"Robbins, Mr. Victor",male,0,0,PC 17757,227.525,,C,,,"nM0239,1,1,"Robert, Mrs. Edward Scott (Elisabeth Walton McMillan)",female,43,0,1,24160,211.3375,B3,S,2,,,"St Louis, MO"\nM0240,1,0,"Roebling, Mr. Washington Augustus II",male,31,0,0,PC 17590,50.4958,A24,S,,,"Trenton, NJ"\nM0241,1,1,"Romaine, Mr. Charles Hallace (""Mr C Rolmane""")",male,45,0,0,114248,26.55,,S,9,,,"New York, NY"\nM0242,1,0,"Rood, Mr. Hugh Roscoe",male,0,0,113767,50,A32,S,,,"Seattle, WA"\nM0243,1,1,"Rosenbaum, Miss. Edith Louise",female,33,0,0,PC 17613,27.7208,A11,C,11,,,"Paris, France"\nM0244,1,0,"Rosenshine, Mr. George (""Mr George Thorne""")",male,46,0,0,PC 17585,79.2,,C,,16,"New York, NY"\nM0245,1,0,"Ross, Mr. John Hugo",male,36,0,0,13049,40.125,A10,C,,,"Winnipeg, MB"\nM0246,1,1,"Roths, the Countess. of (Lucy Noel Martha Dyer-Edwards)",female,33,0,0,110152,86.5,B77,S,8,,,"London Vancouver, BC"\nM0247,1,0,"Rothschild, Mr. Martin",male,55,1,0,PC 17603,59.4,,C,,,"New York, NY"\nM0248,1,1,"Rothschild, Mrs. Martin (Elizabeth L. Barrett)",female,54,1,0,PC 17603,59.4,,C,6,,,"New York, NY"\nM0249,1,0,"Rowe, Mr. Alfred G",male,33,0,0,113790,26.55,,S,,109,"London"\nM0250,1,1,"Ryerson, Master. John Borie",male,13,2,2,PC 17608,262.375,B57 B59 B63 B66,C,4,,,"Haverford, PA / Cooperstown, NY"\nM0251,1,1,"Ryerson, Miss. Emily Borie",female,18,2,2,PC 17608,262.375,B57 B59 B63 B66,C,4,,,"Haverford, PA / Cooperstown, NY"\nM0252,1,1,"Ryerson, Miss. Susan Parker ""Suzette""",female,21,2,2,PC 17608,262.375,B57 B59 B63 B66,C,4,,,"Haverford, PA / Cooperstown, NY"\nM0253,1,0,"Ryerson, Mr. Arthur Larned",male,61,1,3,PC 17608,262.375,B57 B59 B63 B66,C,,,"Haverford, PA / Cooperstown, NY"\nM0254,1,1,"Ryerson, Mrs. Arthur Larned (Emily Maria Borie)",female,48,1,3,PC 17608,262.375,B57 B59 B63 B66,C,4,,,"Haverford, PA / Cooperstown, NY"\nM0255,1,1,"Saalfeld, Mr. Adolphe",male,0,0,19988,30.5,C106,S,3,,,"Manchester, England"\nM0256,1,1,"Sagesser, Mlle. Emma",female,24,0,0,PC 17477,69.3,B35,C,9,,,"Salomon, Mr. Abraham L",male,0,0,111163,26,,S,1,,,"New York, NY"\nM0258.1.1,"Schabert. Mrs. Paul (Emma Mock)",female,35,1,0,13236,57.75,C28,C,11,,,"New York, NY"\nM0259,1,1,"Serepeca, Miss. William Baird",male,50,1,0,13507,55.9,E44,S,,,"Duluth, MN"\nM0264,1,1,"Silvey, Mrs. William Baird (Alice Munger)",female,39,1,0,13507,55.9,E44,S,11,,,"Duluth, MN"\nM0265,1,1,"Simonius-Blumer, Col. Oberst Alfons",male,56,0,0,13213,35.5,A26,C,3,,,"Basel, Switzerland"\nM0266,1,1,"Sloper, Mr. William Thompson",male,28,0,0,113788,35.5,A6,S,7,,,"New Britain, CT"\nM0267,1,0,"Smart, Mr. John Montgomery",male,56,0,0,113792,26.55,,S,,,"New York, NY"\nM0268,1,0,"Smith, Mr. James Clinch",male,56,0,0,17764,30.6958,A7,C,,,"St James, Long Island, NY"\nM0269,1,0,"Smith, Mr. Lucien Philip",male,24,1,0,13695,60,C31,S,,,"Huntington, WV"\nM0270,1,0,"Smith, Mr. Richard William",male,0,0,113056,26,A19,S,,,"Streatham, Surrey"\nM0271,1,1,"Smith, Mrs. Lucien Philip (Mary Eloise Hughes)",female,18,1,0,13695,60,C31,S,6,,,"Huntington, WV"\nM0272,1,1,"Snyder, Mr. John Pillsbury",male,24,1,0,21228,82.2667,B45,S,7,,,"Minneapolis, MN"\nM0273,1,1,"Snyder, Mrs. John Pillsbury (Nelle Stevenson)",female,23,1,0,21228,82.2667,B45,S,7,,,"Minneapolis, MN"\nM0274,1,1,"Spedden, Master. Robert Douglas",male,6,0,2,16966,134.5,E34,C,3,,,"Tuxedo Park, NY"\nM0275,1,1,"Spedden, Mr. Frederic Oakley",male,45,1,1,16966,134.5,E34,C,3,,,"Tuxedo Park, NY"\nM0276,1,1,"Spedden, Mrs. Frederic Oakley (Margaretta Corning Stone)",female,40,1,1,16966,134.5,E34,C,3,,,"Tuxedo Park, NY"\nM0277,1,0,"Spencer, Mr. William Augustus",male,57,1,0,PC 17569,146.5208,B78,C,,,"Paris, France"\nM0278,1,1,"Spencer, Mrs. William Augustus (Marie Eugenie)",female,1,0,PC 17569,146.5208,B78,C,6,,,"Paris, France"\nM0279,1,1,"Stahelin-Maeglin, Dr. Max",male,32,0,0,13214,30.5,B50,C,3,,,"Basel, Switzerland"\nM0280,1,0,"Stead, Mr. William Thomas",male,62,0,0,113514,26.55,C87,S,,,"Wimbledon Park, London / Hayling Island, Hants"\nM0281,1,1,"Stengel, Mr. Charles Emil Henry",male,54,1,0,11778,55.4417,C116,C,1,,,"Newark, NJ"\nM0282,1,1,"Stengel, Mrs. Charles Emil Henry (Annie May Morris)",female,43,1,0,11778,55.4417,C116,C,5,,,"Newark, NJ"\nM0283,1,1,"Stephenson, Mrs. Walter Bertram (Martha Eustis)",female,52,1,0,36947,78.2667,D20,C,4,,,"Haverford, PA"\nM0284,1,0,"Stewart, Mr. Albert A",male,0,0,PC 17605,27.7208,C,,,"Gallipolis, Ohio / ? Paris / New York"\nM0285,1,1,"Stone, Mrs. George Nelson (Martha Evelyn)",female,62,0,0,113572,80,B28,,6,,,"Cincinnati, OH"\nM0286,1,0,"Straus, Mr. Isidor",male,67,1,0,PC 17483,221.7792,C55 C57,S,96,"New York, NY"\nM0287,1,0,"Straus, Mrs. Isidor (Rosalie Ida Blun)",female,63,1,0,PC 17483,221.7792,C55 C57,S,,,"New York, NY"\nM0288,1,0,"Sutton, Mr. Frederick",male,61,0,0,36963,32.3208,D50,S,46,"Haddenfield, NJ"\nM0289,1,1,"Swift, Mrs. Frederick Joel (Margaret Welles Barron)",female,48,0,0,17466,25.9292,D17,S,8,,,"Brooklyn, NY"\nM0290,1,1,"Taussig, Miss. Ruth",female,18,0,2,110413,79.65,E68,S,8,,,"New York, NY"\nM0291,1,0,"Taussig, Mr. Emil",male,52,1,1,110413,79.65,E67,S,,,"New York, NY"\nM0292,1,1,"Taussig, Mrs. Emil (Tillie Mandelbaum)",female,39,1,1,110413,79.65,E67,S,8,,,"New York, NY"\nM0293,1,1,"Taylor, Mr. Elmer Zebley",male,48,1,0,19996,52,C126,S,5 7,,,"London / East Orange, NJ"\nM0294,1,1,"Taylor, Mrs. Elmer Zebley (Juliet Cummins Wright)",female,,1,0,19996,52,C126,S,5 7,,,"London / East Orange, NJ"\nM0295,1,0,"Thayer, Mr. John Borland",male,49,1,1,17421,110.8833,C68,C,,,"Haverford, PA"\nM0296,1,1,"Thayer, Mr. John Borland Jr",male,17,0,2,17421,110.8833,C70,C,B,,,"Haverford, PA"\nM0297,1,1,"Thayer, Mrs. John Borland (Marian Longstreth Morris)",female,39,1,1,17421,110.8833,C68,C,4,,,"Haverford, PA"\nM0298,1,1,"Thorne, Mrs. Gertrude Maybelle",female,0,0,PC 17585,79.2,,C,D,,,"New York, NY"\nM0299,1,1,"Tucker, Mr. Gilbert Milligan Jr",male,31,0,0,2543,28.5375,C53,C,7,,,"Albany, NY"\nM0300,1,0,"Urchurt, Don. Manuel E",male,40,0,0,PC 17601,27.7208,C,,,"Mexico City, Mexico"\nM0301,1,0,"Van der hoef, Mr. Wyckoff",male,61,0,0,111240,33.5,B19,S,,245,"Brooklyn, NY"\nM0302,1,0,"Walker, Mr. William Anderson",male,47,0,0,36967,34.0208,D46,S,,,"East Orange, NJ"\nM0303,1,1,"Ward, Miss. Anna",female,35,0,0,PC 17755,512.3292,C,3,,,"nM0304,1,0,"Warren, Mr. Frank Manley",male,64,1,0,110813,75.25,D37,C,,,"Portland, OR"\nM0305,1,1,"Warren, Mrs. Frank Manley (Anna Sophia Atkinson)",female,60,1,0,110813,75.25,D37,C,5,,,"Portland, OR"\nM0306,1,0,"Weir, Col. John",male,60,0,0,113800,26.55,,S,,,"England Salt Lake City, Utah"\nM0307,1,0,"White, Mr. Percival Wayland",male,54,0,1,35281,77.2875,D26,S,,,"Brunswick, ME"\nM0308,1,0,"White, Mr. Richard Frasar",male,21,0,1,35281,77.2875,D26,S,,169,"Brunswick, ME"\nM0309,1,1,"White, Mrs. John Stuart (Ella Holmes)",female,55,0,0,PC 17760,135.6333,C32,C,8,,,"New York, NY / Briarcliff Manor NY"\nM0310,1,1,"Wick, Miss. Mary Natalie",female,31,0,2,36928,164.8667,C7,S,8,,,"Youngstown, OH"\nM0311,1,0,"Wick, Mr. George Dennick",male,57,1,1,36928,164.8667,,S,,,"Youngstown, OH"\nM0312,1,1,"Wick, Mrs. George Dennick (Mary

Hitchcock", female, 45, 1, 1, 36928, 164.866, , , 8, , "Youngstown, OH" \nM0313, 1, 0, "Widener, Mr. George Dunton", male, 50, 1, 1, 113593, 211.5, C80, C, , , "Elkins Park, PA" \nM0314, 1, 0, "Widener, Mr. Harry Elkins", male, 27, 0, 2, 113503, 211.5, C82, C, , , "Elkins Park, PA" \nM0315, 1, 1, "Widener, Mrs. George Dunton (Eleanor Elkins)", female, 50, 1, 1, 113503, 211.5, C80, C, 4, , "Elkins Park, PA" \nM0316, 1, 1, "Willard, Miss. Constance", female, 21, 0, 0, 113795, 26.55, , , 8 10, , "Duluth, MN" \nM0317, 1, 0, "Williams, Mr. Charles Duane", male, 51, 0, 1, PC 17597, 61.3792, C, , , "Geneva, Switzerland / Radnor, PA" \nM0318, 1, 1, "Williams, Mr. Richard Norris II", male, 21, 0, 1, PC 17597, 61.3792, C, A, , "Geneva, Switzerland / Radnor, PA" \nM0319, 1, 0, "Williams-Lambert, Mr. Fletcher Fellows", male, 0, 0, 113510, 35, C128, S, , , "London, England" \nM0320, 1, 1, "Wilson, Miss. Helen Alice", female, 31, 0, 0, 16966, 134.5, E39 E41, C, 3, , \nM0321, 1, 1, "Woolner, Mr. Hugh", male, 0, 0, 19947, 35.5, C52, S, D, , "London, England" \nM0322, 1, 0, "Wright, Mr. George", male, 62, 0, 0, 113807, 26.55, , , , "Halifax, NS" \nM0323, 1, 1, "Young, Miss. Marie Grice", female, 36, 0, 0, PC 17760, 135.6333, C32, C, 8, , "New York, NY / Washington, DC" \nM0324, 2, 0, "Abelson, Mr. Samuel", male, 30, 1, 0, P/PP 3381, 24, , C, , , "Russia New York, NY" \nM0325, 2, 1, "Abelson, Mrs. Samuel (Hannah Wizosky)", female, 28, 1, 0, P/PP 3381, 24, , C, 10, , "Russia New York, NY" \nM0326, 2, 0, "Aldworth, Mr. Charles Augustus", male, 30, 0, 0, 248744, 13, , S, , , "Bryn Mawr, PA, USA" \nM0327, 2, 0, "Andrew, Mr. Edgardio Samuel", male, 18, 0, 0, 231945, 11.5, , S, , , "Buenos Aires, Argentina / New Jersey, NJ" \nM0328, 2, 0, "Andrew, Mr. Frank Thomas", male, 25, 0, 0, C.A. 34050, 10.5, , S, , , "Cornwall, England Houghton, MI" \nM0329, 2, 0, "Angle, Mr. William A", male, 34, 1, 0, 226875, 26, , S, , , "Warwick, England" \nM0330, 2, 1, "Angle, Mrs. William A (Florence ""Mary"" Agnes Hughes)", female, 36, 1, 0, 226875, 26, , S, 11, , "Warwick, England" \nM0331, 2, 0, "Ashby, Mr. John", male, 57, 0, 0, 244346, 13, , S, , , "West Hoboken, NJ" \nM0332, 2, 0, "Bailey, Mr. Percy Andrew", male, 18, 0, 0, 29108, 11.5, , S, , , "Penzance, Cornwall / Akron, OH" \nM0333, 2, 0, "Baimbridge, Mr. Charles Robert", male, 23, 0, 0, C.A. 31030, 10.5, , S, , , Guernsey \nM0334, 2, 1, "Ball, Mrs. (Ada E Hall)", female, 36, 0, 0, 28551, 13, D, S, 10, , "Bristol, Avon / Jacksonville, FL" \nM0335, 2, 0, "Banfield, Mr. Frederick James", male, 28, 0, 0, C.A./SOTON 34068, 10.5, , S, , , "Plymouth, Dorset / Houghton, MI" \nM0336, 2, 0, "Bateman, Rev. Robert James", male, 51, 0, 0, S.O.P. 1166, 12.525, , S, 174, , "Jacksonville, FL" \nM0337, 2, 1, "Beane, Mr. Edward", male, 32, 1, 0, 2908, 26, , S, 13, , "Norwich / New York, NY" \nM0338, 2, 1, "Beane, Mrs. Edward (Ethel Clarke)", female, 19, 1, 0, 2908, 26, , S, 13, , "Norwich / New York, NY" \nM0339, 2, 0, "Beauchamp, Mr. Henry James", male, 28, 0, 0, 244358, 26, , S, , , England \nM0340, 2, 1, "Becker, Master. Richard F", male, 1, 2, 1, 230136, 39, F4, S, 11, , "Guntur, India / Benton Harbour, MI" \nM0341, 2, 1, "Becker, Miss. Marion Louise", female, 4, 2, 1, 230136, 39, F4, S, 11, , "Guntur, India / Benton Harbour, MI" \nM0342, 2, 1, "Becker, Miss. Ruth Elizabeth", female, 12, 2, 1, 230136, 39, F4, S, 13, , "Guntur, India / Benton Harbour, MI" \nM0343, 2, 1, "Becker, Mrs. Allen Oliver (Nellie E Baumgardner)", female, 36, 0, 3, 230136, 39, F4, S, 11, , "Guntur, India / Benton Harbour, MI" \nM0344, 2, 1, "Beesley, Mr. Lawrence", male, 34, 0, 0, 248698, 13, D56, S, 13, , London \nM0345, 2, 1, "Bentham, Miss. Lilian W", female, 19, 0, 0, 28404, 13, , S, 12, , "Rochester, NY" \nM0346, 2, 0, "Berriman, Mr. William John", male, 23, 0, 0, 28425, 13, , S, , , "St Ives, Cornwall / Calumet, MI" \nM0347, 2, 0, "Botsford, Mr. William Hull", male, 26, 0, 0, 237670, 13, , S, , , "Elmira, NY / Orange, NJ" \nM0348, 2, 0, "Bowenur, Mr. Solomon", male, 42, 0, 0, 211535, 13, , S, , , London \nM0349, 2, 0, "Bracken, Mr. James H", male, 27, 0, 0, 220367, 13, , S, , , "Lake Arthur, Chavez County, NM" \nM0350, 2, 1, "Brown, Miss. Amelia ""Mildred""", female, 24, 0, 0, 248733, 13, F33, S, 11, , "London / Montreal, PQ" \nM0351, 2, 1, "Brown, Miss. Edith Eileen", female, 15, 0, 2, 29750, 39, , S, 14, , "Cape Town, South Africa / Seattle, WA" \nM0352, 2, 0, "Brown, Mr. Thomas William Solomon", male, 60, 1, 1, 29750, 39, , S, , , "Cape Town, South Africa / Seattle, WA" \nM0353, 2, 1, "Brown, Mrs. Thomas William Solomon (Elizabeth Catherine Ford)", female, 40, 1, 1, 29750, 39, , S, 14, , "Cape Town, South Africa / Seattle, WA" \nM0354, 2, 1, "Bryhl, Miss. Dagmar Jenny Ingeborg", female, 20, 1, 0, 236853, 26, , S, 12, , "Skara, Sweden / Rockford, IL" \nM0355, 2, 0, "Bryhl, Mr. Kurt Arnold Gottfrid", male, 25, 1, 0, 236853, 26, , S, , , "Skara, Sweden / Rockford, IL" \nM0356, 2, 1, "Buss, Miss. Kate", female, 36, 0, 0, 27849, 13, , S, 9, , "Sittingbourne, England / San Diego, CA" \nM0357, 2, 0, "Butler, Mr. Reginald Fenton", male, 25, 0, 0, 234686, 13, , S, 97, "Southsea, Hants" \nM0358, 2, 0, "Byles, Rev. Thomas Roussel Davids", male, 42, 0, 0, 244310, 13, , S, , , London \nM0359, 2, 1, "Bystrom, Mrs. (Karolina)", female, 42, 0, 0, 236852, 13, , S, , , "New York, NY" \nM0360, 2, 1, "Caldwell, Master. Alden Gates", male, 0, 83, 0, 2, 248738, 29, , S, 13, , "Bangkok, Thailand / Roseville, IL" \nM0361, 2, 1, "Caldwell, Mr. Albert Francis", male, 26, 1, 1, 248738, 29, , S, 13, , "Bangkok, Thailand / Roseville, IL" \nM0362, 2, 1, "Caldwell, Mr. Albert Francis (Sylvia Mae Harbaugh)", female, 22, 1, 1, 248738, 29, , S, 13, , "Bangkok, Thailand / Roseville, IL" \nM0363, 2, 1, "Campbell, Miss. Clear Annie", female, 35, 0, 0, F.C.C. 13528, 21, , S, 14, , "Mamaroneck, NY" \nM0364, 2, 0, "Campbell, Mr. James", male, 30, 1, 0, 237670, 13, , S, , , "St Ives, Cornwall / Calumet, MI" \nM0365, 2, 0, "Carbines, Mr. William", male, 19, 0, 0, 28424, 13, , S, 18, , "St Ives, Cornwall / Calumet, MI" \nM0366, 2, 0, "Carter, Mrs. Ernest Courtenay (Lilian Hughes)", female, 44, 1, 0, 244252, 26, , S, , , London \nM0367, 2, 0, "Carter, Rev. Ernest Courtenay", male, 54, 1, 0, 244252, 26, , S, , , London \nM0368, 2, 0, "Chapman, Mr. Charles Henry", male, 52, 0, 0, 248731, 13.5, , S, 130, "Bronx, NY" \nM0369, 2, 0, "Chapman, Mr. John Henry", male, 37, 1, 0, SC/AH 29037, 26, , S, 17, "Cornwall / Spokane, WA" \nM0370, 2, 0, "Chapman, Mr. John Henry (Sara Elizabeth Lawry)", female, 29, 1, 0, SC/AH 29037, 26, , S, , , "Cornwall / Spokane, WA" \nM0371, 2, 1, "Christy, Miss. Julie Rachel", female, 25, 1, 1, 237789, 30, , S, 12, , London \nM0372, 2, 1, "Christy, Mrs. (Alice Frances)", female, 45, 0, 2, 237789, 30, , S, 12, , London \nM0373, 2, 0, "Clarke, Mr. Charles Valentine", male, 29, 1, 0, 2003, 26, , S, , , "England / San Francisco, CA" \nM0374, 2, 1, "Clarke, Mrs. Charles V (Ada Maria Winfield)", female, 28, 1, 0, 2003, 26, , S, 14, , "England / San Francisco, CA" \nM0375, 2, 0, "Coleridge, Mr. Reginald Charles", male, 29, 0, 0, W./C. 14263, 10.5, , S, , , "Hartford, Huntingdonshire" \nM0376, 2, 0, "Collander, Mr. Erik Gustaf", male, 28, 0, 0, 248740, 13, , S, , , "Helsinki, Finland Ashtabula, Ohio" \nM0377, 2, 1, "Collett, Mr. Sidney C Stuart", male, 24, 0, 0, 28034, 10.5, , S, 9, , "London / Fort Byron, NY" \nM0378, 2, 1, "Collyer, Miss. Marjorie ""Lottie""", female, 8, 0, 2, C.A. 31921, 26.25, , S, 14, , "Bishopstoke, Hants / Fayette Valley, ID" \nM0379, 2, 0, "Collyer, Mr. Harvey", male, 31, 1, 1, C.A. 31921, 26.25, , S, , , "Bishopstoke, Hants / Fayette Valley, ID" \nM0380, 2, 1, "Collyer, Mrs. Harvey (Charlotte Annie Tate)", female, 31, 1, 1, C.A. 31921, 26.25, , S, 14, , "Bishopstoke, Hants / Fayette Valley, ID" \nM0381, 2, 1, "Cook, Mrs. (Selena Rogers)", female, 22, 0, 0, W./C. 14266, 10.5, F33, S, 14, , Pennsylvania \nM0382, 2, 0, "Corbett, Mrs. Walter H (Irene Colvin)", female, 30, 0, 0, 237249, 13, , S, , , "Provo, UT" \nM0383, 2, 0, "Corey, Mrs. Percy C (Mary Phyllis Elizabeth Miller)", female, 0, 0, 0, F.C.C. 13534, 21, , S, , , "Upper Burma, India Pittsburgh, PA" \nM0384, 2, 0, "Cotterill, Mr. Henry ""Harry""", male, 21, 0, 0, 29107, 11.5, , S, , , "Penzance, Cornwall / Akron, OH" \nM0385, 2, 0, "Cunningham, Mr. Alfred Fleming", male, 0, 0, 239853, 0, , S, , , Belfast \nM0386, 2, 1, "Davies, Master. John Morgan Jr", male, 8, 1, 1, C.A. 33112, 36.75, , S, 14, , "St Ives, Cornwall / Hancock, MI" \nM0387, 2, 0, "Davies, Mr. Charles Henry", male, 18, 0, 0, S.O.C. 14879, 73.5, , S, , , "Lyndhurst, England" \nM0388, 2, 1, "Davies, Mrs. John Morgan (Elizabeth Agnes Mary White)", female, 48, 0, 2, C.A. 33112, 36.75, , S, 14, , "St Ives, Cornwall / Hancock, MI" \nM0389, 2, 1, "Davis, Miss. Mary", female, 28, 0, 0, 237668, 13, , S, 13, , "London / Staten Island, NY" \nM0390, 2, 0, "de Brito, Mr. Jose Joaquim", male, 32, 0, 0, 244360, 13, , S, , , "Portugal / Sau Paulo, Brazil" \nM0391, 2, 0, "Deacon, Mr. Percy William", male, 17, 0, 0, S.O.C. 14879, 73.5, , S, , , \nM0392, 2, 0, "del Carlo, Mr. Sebastiano", male, 29, 1, 0, SC/PARIS 2167, 27.7208, , C, 295, "Lucca, Italy / California" \nM0393, 2, 1, "del Carlo, Mrs. Sebastiano (Argentina Genovesi)", female, 24, 1, 0, SC/PARIS 2167, 27.7208, , C, 12, , "Lucca, Italy / California" \nM0394, 2, 0, "Denbury, Mr. Herbert", male, 25, 0, 0, C.A. 31029, 31.5, , S, , , "Guernsey / Elizabeth, NJ" \nM0395, 2, 0, "Dibden, Mr. William", male, 18, 0, 0, S.O.C. 14879, 73.5, , S, , , "New Forest, England" \nM0396, 2, 1, "Doling, Miss. Elsie", female, 18, 0, 1, 231919, 23, , S, , , Southampton \nM0397, 2, 1, "Doling, Mrs. John T (Ada Julia Bone)", female, 34, 0, 1, 231919, 23, , S, , , Southampton \nM0398, 2, 0, "Downton, Mr. William James", male, 54, 0, 0, 28403, 26, , S, , , "Holley, NY" \nM0399, 2, 1, "Drew, Master. Marshall Brines", male, 8, 0, 2, 28220, 32.5, , S, 10, , "Greenport, NY" \nM0400, 2, 0, "Drew, Mr. James Vivian", male, 42, 1, 1, 28220, 32.5, , S, , , "Greenport, NY" \nM0401, 2, 1, "Drew, Mrs. James Vivian (Lulu Thorne Christian)", female, 34, 1, 1, 28220, 32.5, , S, 10, , "Greenport, NY" \nM0402, 2, 1, "Duran y More, Miss. Asuncion", female, 27, 1, 0, SC/PARIS 2149, 13.8583, , C, 12, , "Barcelona, Spain / Havana, Cuba" \nM0403, 2, 1, "Duran y More, Miss. Florentina", female, 30, 1, 0, SC/PARIS 2148, 13.8583, , C, 12, , "Barcelona, Spain / Havana, Cuba" \nM0404, 2, 0, "Eitemiller, Mr. George Floyd", male, 23, 0, 0, 29751, 13, , S, , , "England / Detroit, MI" \nM0405, 2, 0, "Enander, Mr. Ingvar", male, 21, 0, 0, 236854, 13, , S, , , Goteborg, Sweden / Rockford, IL" \nM0406, 2, 0, "Fahlstrom, Mr. Arne Jonas", male, 18, 0, 0, 236171, 13, , S, , , "Oslo, Norway Bayonne, NJ" \nM0407, 2, 0, "Faunthorpe, Mr. Harry", male, 40, 1, 0, 2926, 26, , S, 286, "England / Philadelphia, PA" \nM0408, 2, 1, "Faunthorpe, Mrs. Lizzie (Elizabeth Anne Wilkinson)", female, 29, 1, 0, 2926, 26, , S, 16, , \nM0409, 2, 0, "Fillbrook, Mr. Joseph Charles", male, 18, 0, 0, C.A. 15185, 10.5, , S, , , "Cornwall / Houghton, MI" \nM0410, 2, 0, "Fox, Mr. Stanley Hubert", male, 36, 0, 0, 229236, 13, , S, 236, "Rochester, NY" \nM0411, 2, 0, "Frost, Mr. Anthony Wood ""Archie""", male, 0, 0, 239854, 0, , S, , , Belfast \nM0412, 2, 0, "Funk, Miss. Annie Clemmer", female, 38, 0, 0, 237671, 13, , S, , , "Janjgir, India / Pennsylvania" \nM0413, 2, 0, "Fynney, Mr. Joseph J", male, 35, 0, 0, 239865, 26, , S, 322, "Liverpool / Montreal, PQ" \nM0414, 2, 0, "Gale, Mr. Harry", male, 38, 1, 0, 28664, 21, , S, , , "Cornwall / Clear Creek, CO" \nM0415, 2, 0, "Gale, Mr. Shadrach", male, 34, 1, 0, 28664, 21, , S, , , "Cornwall / Clear Creek, CO" \nM0416, 2, 1, "Garside, Miss. Ethel", female, 34, 0, 0, 243880, 13, .S.12, . "Brooklvn, NY" \nM0417, 2, 0, "Gaskell, Mr. Alfred", male, 16, 0, 0, 239865, 26, .S, . "Liverpool /

Montreal, PQ"\nM0418,2,0,"Gavey, Mr. Lawrence",male,26,0,0,31028,10.5,,S,,,"Guernsey / Elizabeth, NJ"\nM0419,2,0,"Gilbert, Mr. William",male,47,0,0,C.A. 30769,10.5,,S,,,"Cornwall"\nM0420,2,0,"Giles, Mr. Edgar",male,21,1,0,28133,11.5,,S,,,"Cornwall / Camden, NJ"\nM0421,2,0,"Giles, Mr. Frederick Edward",male,21,1,0,28134,11.5,,S,,,"Cornwall / Camden, NJ"\nM0422,2,0,"Giles, Mr. Ralph",male,24,0,0,248726,13.5,,S,,297,"West Kensington, London"\nM0423,2,0,"Gill, Mr. John William",male,24,0,0,233866,13,,S,,155,"Clevedon, England"\nM0424,2,0,"Gillespie, Mr. William Henry",male,34,0,0,12233,13,,S,,,"Vancouver, BC"\nM0425,2,0,"Givard, Mr. Hans Kristensen",male,30,0,0,250646,13,,S,,305,"nM0426,2,0,"Greenberg, Mr. Samuel",male,52,0,0,250647,13,,S,,19,"Bronx, NY"\nM0427,2,0,"Hale, Mr. Reginald",male,30,0,0,250653,13,,S,,75,"Auburn, NY"\nM0428,2,1,"Hamalainen, Master. Viljo",male,0.67,1,1,250649,14.5,,S,4,,,"Detroit, MI"\nM0429,2,1,"Hamalainen, Mrs. William (Anna)",female,24,0,2,250649,14.5,,S,4,,,"Detroit, MI"\nM0430,2,0,"Harbeck, Mr. William H",male,44,0,0,248746,13,,S,,35,"Seattle, WA / Toledo, OH"\nM0431,2,1,"Harper, Miss. Annie Jessie ""Nina""",female,6,0,1,248727,33,,S,11,,,"Denmark Hill, Surrey / Chicago"\nM0432,2,0,"Harper, Rev. John",male,28,0,1,248727,33,,S,,,"Denmark Hill, Surrey / Chicago"\nM0433,2,1,"Harris, Mr. George",male,62,0,0,S.W./PP 752,10.5,,S,15,"London"\nM0434,2,0,"Harris, Mr. Walter",male,30,0,0,W/C 14208,10.5,,S,,,"Walthamstow, England"\nM0435,2,1,"Hart, Miss. Eva Miriam",female,7,0,2,F.C.C. 13529,26.25,,S,14,,,"Ilford, Essex / Winnipeg, MB"\nM0436,2,0,"Hart, Mr. Benjamin",male,43,1,1,F.C.C. 13529,26.25,,S,,,"Ilford, Essex / Winnipeg, MB"\nM0437,2,1,"Hart, Mrs. Benjamin (Esther Ada Bloomfield)",female,45,1,1,F.C.C. 13529,26.25,,S,14,,,"Ilford, Essex / Winnipeg, MB"\nM0438,2,1,"Herman, Miss. Alice",female,24,1,2,220845,65,,S,9,,,"Somerset / Bernardsville, NJ"\nM0439,2,1,"Herman, Miss. Kate",female,24,1,2,220845,65,,S,9,,,"Somerset / Bernardsville, NJ"\nM0440,2,0,"Herman, Mr. Samuel",male,49,1,2,220845,65,,S,,,"Somerset / Bernardsville, NJ"\nM0441,2,1,"Herman, Mrs. Samuel (Jane Laver)",female,48,1,2,220845,65,,S,9,,,"Somerset / Bernardsville, NJ"\nM0442,2,1,"Hewlett, Mrs. (Mary D Kingcome)",female,55,0,0,248706,16,,S,13,,,"India / Rapid City, SD"\nM0443,2,0,"Hickman, Mr. Leonard Mark",male,24,2,0,S.O.C. 14879,73.5,,S,,,"West Hampstead, London / Neepawa, MB"\nM0444,2,0,"Hickman, Mr. Lewis",male,32,2,0,S.O.C. 14879,73.5,,S,,256,"West Hampstead, London / Neepawa, MB"\nM0445,2,0,"Hickman, Mr. Stanley George",male,21,2,0,S.O.C. 14879,73.5,,S,,,"West Hampstead, London / Neepawa, MB"\nM0446,2,0,"Hiltunen, Miss. Marta",female,18,1,1,250650,13,,S,,,"Kontiolahti, Finland / Detroit, MI"\nM0447,2,1,"Hocking, Miss. Ellen ""Nellie""",female,20,2,1,29105,23,,S,4,,,"Cornwall / Akron, OH"\nM0448,2,0,"Hocking, Mr. Richard George",male,23,2,1,29104,11.5,,S,,,"Cornwall / Akron, OH"\nM0449,2,0,"Hocking, Mr. Samuel James Metcalfe",male,36,0,0,242963,13,,S,,,"Devonport, England"\nM0450,2,1,"Hocking, Mrs. Elizabeth (Eliza Needs)",female,54,1,3,29105,23,,S,4,,,"Cornwall / Akron, OH"\nM0451,2,0,"Hodges, Mr. Henry Price",male,50,0,0,250643,13,,S,,149,"Southampton"\nM0452,2,0,"Hold, Mr. Stephen",male,44,1,0,26707,26,,S,,,"England / Sacramento, CA"\nM0453,2,1,"Hold, Mrs. Stephen (Annie Margaret Hill)",female,29,1,0,26707,26,,S,10,,,"England / Sacramento, CA"\nM0454,2,0,"Hood, Mr. Ambrose Jr",male,21,0,0,S.O.C. 14879,73.5,,S,,,"New Forest, England"\nM0455,2,1,"Hosono, Mr. Masabumi",male,42,0,0,237798,13,,S,10,,,"Tokyo, Japan"\nM0456,2,0,"Howard, Mr. Benjamin",male,63,1,0,24065,26,,S,,,"Swindon, England"\nM0457,2,0,"Howard, Mrs. Benjamin (Ellen Truelove Arman)",female,60,1,0,24065,26,,S,,,"Swindon, England"\nM0458,2,0,"Hunt, Mr. George Henry",male,33,0,0,SCO/W 1585,12.275,,S,,,"Philadelphia, PA"\nM0459,2,1,"Ilett, Miss. Bertha",female,17,0,0,SO/C 14885,10.5,,S,,,"Guernsey"\nM0460,2,0,"Jacobsohn, Mr. Sidney Samuel",male,42,1,0,243847,27,,S,,,"London"\nM0461,2,1,"Jacobsohn, Mrs. Sidney Samuel (Amy Frances Christy)",female,24,2,1,243847,27,,S,12,"London"\nM0462,2,0,"Jarvis, Mr. John Denzil",male,47,0,0,237565,15,,S,,,"North Evington, England"\nM0463,2,0,"Jefferys, Mr. Clifford Thomas",male,24,2,0,C.A. 31029,31.5,,S,,,"Guernsey / Elizabeth, NJ"\nM0464,2,0,"Jefferys, Mr. Ernest Wilfred",male,22,2,0,C.A. 31029,31.5,,S,,,"Guernsey / Elizabeth, NJ"\nM0465,2,0,"Jenkin, Mr. Stephen Curnow",male,32,0,0,C.A. 33111,10.5,,S,,,"St Ives, Cornwall / Houghton, MI"\nM0466,2,1,"Jerwan, Mrs. Amin S (Marie Marthe Thuillard)",female,23,0,0,SC/AH Basle 541,13.7917,D,C,11,,,"New York, NY"\nM0467,2,0,"Kantor, Mr. Sinai",male,34,1,0,244367,26,,S,283,"Moscow / Bronx, NY"\nM0468,2,1,"Kantor, Mrs. Sinai (Miriam Sternin)",female,24,1,0,244367,26,,S,12,,,"Moscow / Bronx, NY"\nM0469,2,0,"Karnes, Mrs. J Frank (Claire Bennett)",female,23,0,0,S.O.C. 13534,21,,S,,,"India / Pittsburgh, PA"\nM0470,2,1,"Keane, Miss. Nora",female,1,0,0,,,"Harrisburg, PA"\nM0471,2,0,"Keane, Mr. William",male,5,0,0,,,"New York, NY"\nM0472,2,1,"Kelly, Mrs. Florence ""Fannie""",female,45,0,0,223596,13.5,,S,9,,,"London / New York, NY"\nM0473,2,0,"Kirkland, Rev. Charles Leonard",male,57,0,0,219533,12.35,,Q,,,"Glasgow / Bangor, ME"\nM0474,2,0,"Knight, Mr. Robert J",male,0,0,239855,0,,S,,,"Belfast"\nM0475,2,0,"Kvillner, Mr. Johan Henrik Johannesson",male,31,0,0,C.A. 18723,10.5,,S,,165,"Sweden / Arlington, NJ"\nM0476,2,0,"Lahtinen, Mrs. William (Anna Sylfven)",female,26,1,1,250651,26,,S,,,"Minneapolis, MN"\nM0477,2,0,"Lahtinen, Rev. William",male,30,1,1,250651,26,,S,,,"Minneapolis, MN"\nM0478,2,0,"Lamb, Mr. John Joseph",male,0,0,240261,10.7083,,Q,,,"nM0479,2,1,"Laroche, Miss. Louise",female,1,1,2,SC/Paris 1213,41.5792,,C,14,,,"Paris / Haiti"\nM0480,2,1,"Laroche, Miss. Simonne Marie Anne Andree",female,3,1,2,SC/Paris 1213,41.5792,,C,14,,,"Paris / Haiti"\nM0481,2,0,"Laroche, Mr. Joseph Philippe Lemerrier",male,25,1,2,SC/Paris 1213,41.5792,,C,,,"Paris / Haiti"\nM0482,2,1,"Laroche, Mrs. Joseph (Juliette Marie Louise Lafargue)",female,22,1,2,SC/Paris 1213,41.5792,,C,14,,,"Paris / Haiti"\nM0483,2,1,"Lehmann, Miss. Bertha",female,17,0,0,SC 1748,12,,C,12,,,"Berne, Switzerland / Central City, IA"\nM0484,2,1,"Leitch, Miss. Jessie Wills",female,,0,0,248727,33,,S,11,,,"London / Chicago, IL"\nM0485,2,1,"Lemore, Mrs. (Amelia Milley)",female,34,0,0,C.A. 34260,10.5,F33,S,14,,,"Chicago, IL"\nM0486,2,0,"Levy, Mr. Rene Jacques",male,36,0,0,SC/Paris 2163,12.875,D,C,,,"Montreal, PQ"\nM0487,2,0,"Leyson, Mr. Robert William Norman",male,24,0,0,C.A. 29566,10.5,,S,,108,"nM0488,2,0,"Lingane, Mr. John",male,61,0,0,235509,12.35,,Q,,,"nM0489,2,0,"Louch, Mr. Charles Alexander",male,50,1,0,SC/AH 3085,26,,S,,121,"Weston-Super-Mare, Somerset"\nM0490,2,1,"Louch, Mrs. Charles Alexander (Alice Adelaide Slow)",female,42,1,0,SC/AH 3085,26,,S,,,"Weston-Super-Mare, Somerset"\nM0491,2,0,"Mack, Mrs. (Mary)",female,57,0,0,S.O./P.P. 3,10.5,E77,S,,52,"Southampton / New York, NY"\nM0492,2,0,"Malachard, Mr. Noel",male,,0,0,237735,15.0458,D,C,,,"Paris"\nM0493,2,1,"Mallet, Master. Andre",male,1,0,2,S.C./PARIS 2079,37.0042,,C,10,,,"Paris / Montreal, PQ"\nM0494,2,0,"Mallet, Mr. Albert",male,31,1,1,S.C./PARIS 2079,37.0042,,C,,,"Paris / Montreal, PQ"\nM0495,2,1,"Mallet, Mrs. Albert (Antoinette Magnin)",female,24,1,1,S.C./PARIS 2079,37.0042,,C,10,,,"Paris / Montreal, PQ"\nM0496,2,0,"Mangiavacchi, Mr. Serafino Emilio",male,,0,0,SC/A.3 2861,15.5792,,C,,,"New York, NY"\nM0497,2,0,"Matthews, Mr. William John",male,30,0,0,28228,13,,S,,,"St Austall, Cornwall"\nM0498,2,0,"Maybery, Mr. Frank Hubert",male,40,0,0,239059,16,,S,,,"Weston-Super-Mare / Moose Jaw, SK"\nM0499,2,0,"McCrae, Mr. Arthur Gordon",male,32,0,0,237216,13.5,,S,,209,"Sydney, Australia"\nM0500,2,0,"McCrie, Mr. James Matthew",male,30,0,0,233478,13,,S,,,"Sarnia, ON"\nM0501,2,0,"McKane, Mr. Peter David",male,46,0,0,28403,26,,S,,,"Rochester, NY"\nM0502,2,1,"Mellinger, Miss. Madeleine Violet",female,13,0,1,250644,19.5,,S,14,,,"England / Bennington, VT"\nM0503,2,1,"Mellinger, Mrs. (Elizabeth Anne Maidment)",female,41,0,1,250644,19.5,,S,14,,,"England / Bennington, VT"\nM0504,2,1,"Mellors, Mr. William John",male,19,0,0,SW/PP 751,10.5,,S,B,,,"Chelsea, London"\nM0505,2,0,"Meyer, Mr. August",male,39,0,0,248723,13,,S,,,"Harrow-on-the-Hill, Middlesex"\nM0506,2,0,"Milling, Mr. Jacob Christian",male,48,0,0,234360,13,,S,,271,"Copenhagen, Denmark"\nM0507,2,0,"Mitchell, Mr. Henry Michael",male,70,0,0,C.A. 24580,10.5,,S,,,"Guernsey / Montclair, NJ and/or Toledo, Ohio"\nM0508,2,0,"Montvila, Rev. Juozas",male,27,0,0,211536,13,,S,,,"Worcester, MA"\nM0509,2,0,"Moraweck, Dr. Ernest",male,54,0,0,29011,14,,S,,,"Frankfort, KY"\nM0510,2,0,"Morley, Mr. Henry Samuel (""Mr Henry Marshall"")",male,39,0,0,250655,26,,S,,,"nM0511,2,0,"Mudd, Mr. Thomas Charles",male,16,0,0,S.O./P.P. 3,10.5,,S,,,"Halesworth, England"\nM0512,2,0,"Myles, Mr. Thomas Francis",male,62,0,0,240276,9.6875,,Q,,,"Cambridge, MA"\nM0513,2,0,"Nasser, Mr. Nicholas",male,32,5,1,0,237736,30.0708,,C,,43,"New York, NY"\nM0514,2,1,"Nasser, Mrs. Nicholas (Adele Achen)",female,14,1,0,237736,30.0708,,C,,,"New York, NY"\nM0515,2,1,"Navratil, Master. Edmond Roger",male,2,1,1,230080,26,F2,S,D,,,"Nice, France"\nM0516,2,1,"Navratil, Master. Michel M",male,3,1,1,230080,26,F2,S,D,,,"Nice, France"\nM0517,2,0,"Navratil, Mr. Michel (""Louis M Hoffman"")",male,36,5,0,2,230080,26,F2,S,,15,"Nice, France"\nM0518,2,0,"Nesson, Mr. Israel",male,26,0,0,244368,13,F2,S,,,"Boston, MA"\nM0519,2,0,"Nicholls, Mr. Joseph Charles",male,19,1,1,C.A. 33112,36.75,,S,,101,"Cornwall / Hancock, MI"\nM0520,2,0,"Norman, Mr. Robert Douglas",male,28,0,0,218629,13.5,,S,,287,"Glasgow"\nM0521,2,1,"Nourney, Mr. Alfred (""Baron von Drachstedt"")",male,20,0,0,SC/PARIS 2166,13.8625,D38,C,7,,,"Cologne, Germany"\nM0522,2,1,"Nye, Mrs. (Elizabeth Ramell)",female,29,0,0,C.A. 29395,10.5,F33,S,11,,,"Folkstone, Kent / New York, NY"\nM0523,2,0,"Otter, Mr. Richard",male,39,0,0,28213,13,,S,,,"Middleburg Heights, OH"\nM0524,2,1,"Oxenham, Mr. Percy Thomas",male,22,0,0,W./C. 14260,10.5,,S,13,,,"Pondersend, England / New Durham, NJ"\nM0525,2,1,"Padro y Manent, Mr. Julian",male,,0,0,SC/PARIS

Saved successfully!


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Samuel",male,26,0,0,347075,1.775,,S,,,"Hartford, CT"\nM0633,3,0,"Andersson, Mrs. Anders Johan (Alfrida Konstantia Brogren)",female,39,1,5,347082,31.275,,S,,,"Sweden Winnipeg, MN"\nM0634,3,0,"Andreasson, Mr. Paul Edvin",male,20,0,0,347466,7.8542,,S,,,"Sweden Chicago, IL"\nM0635,3,0,"Angheloff, Mr. Minko",male,26,0,0,349202,7.8958,,S,,,"Bulgaria Chicago, IL"\nM0636,3,0,"Arnold-Franchi, Mr. Josef",male,25,1,0,349237,17.8,,S,,,"Altdorf, Switzerland"\nM0637,3,0,"Arnold-Franchi, Mrs. Josef (Josefine Franchi)",female,18,1,0,349237,17.8,,S,,,"Altdorf, Switzerland"\nM0638,3,0,"Aronsson, Mr. Ernst Axel Algot",male,24,0,0,349911,7.775,,S,,,"Sweden Joliet, IL"\nM0639,3,0,"Asim, Mr. Adola",male,35,0,0,SOTON/O.Q. 3101310,7.05,,S,,,"nM0640,3,0,"Asplund, Master. Carl Edgar",male,5,4,2,347077,31.3875,,S,,,"Sweden Worcester, MA"\nM0641,3,0,"Asplund, Master. Clarence Gustaf Hugo",male,9,4,2,347077,31.3875,,S,,,"Sweden Worcester, MA"\nM0642,3,1,"Asplund, Master. Edvin Rojj Felix",male,3,4,2,347077,31.3875,,S,15,,,"Sweden Worcester, MA"\nM0643,3,0,"Asplund, Master. Filip Oscar",male,13,4,2,347077,31.3875,,S,,,"Sweden Worcester, MA"\nM0644,3,1,"Asplund, Miss. Lillian Gertrud",female,5,4,2,347077,31.3875,,S,15,,,"Sweden Worcester, MA"\nM0645,3,0,"Asplund, Mr. Carl Oscar Vilhelm Gustafsson",male,40,1,5,347077,31.3875,,S,,,"Sweden Worcester, MA"\nM0646,3,1,"Asplund, Mr. Johan Charles",male,23,0,0,350054,7.7958,,S,13,,,"Oskarshamn, Sweden Minneapolis, MN"\nM0647,3,1,"Asplund, Mrs. Carl Oscar (Selma Augusta Emilia Johansson)",female,38,1,5,347077,31.3875,,S,15,,,"Sweden Worcester, MA"\nM0648,3,1,"Assaf Khalil, Mrs. Mariana ("Miriam")",female,45,0,0,2696,7.225,,C,C,,,"Ottawa, ON"\nM0649,3,0,"Assaf, Mr. Gerios",male,21,0,0,2692,7.225,,C,,,"Ottawa, ON"\nM0650,3,0,"Assam, Mr. Ali",male,23,0,0,SOTON/O.Q. 3101309,7.05,,S,,,"nM0651,3,0,"Attalah, Miss. Malake",female,17,0,0,2627,14.4583,,C,,,"nM0652,3,0,"Attalah, Mr. Sleiman",male,30,0,0,2694,7.225,,C,,,"Ottawa, ON"\nM0653,3,0,"Augustsson, Mr. Albert",male,23,0,0,347468,7.8542,,S,,,"Krakoryd, Sweden Bloomington, IL"\nM0654,3,1,"Ayoub, Miss. Banoura",female,13,0,0,2687,7.2292,,C,C,,,"Syria Youngstown, OH"\nM0655,3,0,"Baccos, Mr. Raffull",male,20,0,0,2679,7.225,,C,,,"nM0656,3,0,"Backstrom, Mr. Karl Alfred",male,32,1,0,3101278,15.85,,S,D,,,"Ruotsinphytaa, Finland New York, NY"\nM0657,3,1,"Backstrom, Mrs. Karl Alfred (Maria Mathilda Gustafsson)",female,33,3,0,3101278,15.85,,S,,,"Ruotsinphytaa, Finland New York, NY"\nM0658,3,1,"Baclini, Miss.
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ANALISA

Import file yang akan digunakan kedalam google drive dengan menampilkan preview data.

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1133. 34146, female, 18, 0, 0, 349237, 17.8, S, , , Sweden Chicago, IL "\nM0635, 3, 0, "Angheloff, Mr. Minko", male, 26, 0, 0, 349202, 7.8958, S, , , Bulgaria Chicago, IL "\nM0636, 3, 0, "Arnold-Franchi, Mr. Josef", male, 25, 1, 0, 349237, 17.8, S, , , Altdorf, Switzerland "\nM0637, 3, 0, "Arnold-Franchi, Mrs. Josef (Josefine Franchi)", female, 18, 1, 0, 349237, 17.8, S, , , Altdorf, Switzerland "\nM0638, 3, 0, "Aronsson, Mr. Ernst Axel Algot", male, 24, 0, 0, 349911, 7.775, S, , , Sweden Joliet, IL "\nM0639, 3, 0, "Asim, Mr. Adola", male, 35, 0, 0, SOTON/O.Q. 3101310, 7.05, S, , , nM0640, 3, 0, "Asplund, Master. Carl Edgar", male, 5, 4, 2, 347077, 31.3875, S, , , Sweden Worcester, MA "\nM0641, 3, 0, "Asplund, Master. Clarence Gustaf Hugo", male, 9, 4, 2, 347077, 31.3875, S, , , Sweden Worcester, MA "\nM0642, 3, 1, "Asplund, Master. Edvin Rojj Felix", male, 3, 4, 2, 347077, 31.3875, S, 15, , Sweden Worcester, MA "\nM0643, 3, 0, "Asplund, Master. Filip Oscar", male, 13, 4, 2, 347077, 31.3875, S, , , Sweden Worcester, MA "\nM0644, 3, 1, "Asplund, Miss. Lillian Gertrud", female, 5, 4, 2, 347077, 31.3875, S, 15, , Sweden Worcester, MA "\nM0645, 3, 0, "Asplund, Mr. Carl Oscar Vilhelm Gustafsson", male, 40, 1, 5, 347077, 31.3875, S, , , Sweden Worcester, MA "\nM0646, 3, 1, "Asplund, Mr. Johan Charles", male, 23, 0, 0, 350054, 7.7958, S, 13, , Oskarshamn, Sweden Minneapolis, MN "\nM0647, 3, 1, "Asplund, Mrs. Carl Oscar (Selma Augusta Emilia Johansson)", female, 38, 1, 5, 347077, 31.3875, S, 15, , Sweden Worcester, MA "\nM0648, 3, 1, "Assaf Khalil, Mrs. Mariana ("Miriam")", female, 45, 0, 0, 2696, 7.225, C, C, , Ottawa, ON "\nM0649, 3, 0, "Assaf, Mr. Gerios", male, 21, 0, 0, 2692, 7.225, C, , , Ottawa, ON "\nM0650, 3, 0, "Assam, Mr. Ali", male, 23, 0, 0, SOTON/O.Q. 3101309, 7.05, S, , , nM0651, 3, 0, "Attalah, Miss. Malake", female, 17, 0, 0, 2627, 14.4583, C, , , nM0652, 3, 0, "Attalah, Mr. Sleiman", male, 30, 0, 0, 2694, 7.225, C, , , Ottawa, ON "\nM0653, 3, 0, "Augustsson, Mr. Albert", male, 23, 0, 0, 347468, 7.8542, S, , , Krakoryd, Sweden Bloomington, IL "\nM0654, 3, 1, "Ayoub, Miss. Banoura", female, 13, 0, 0, 2687, 7.2292, C, C, , Syria Youngstown, OH "\nM0655, 3, 0, "Baccos, Mr. Raffull", male, 20, 0, 0, 2679, 7.225, C, , , nM0656, 3, 0, "Backstrom, Mr. Karl Alfred", male, 32, 1, 0, 3101278, 15.85, S, D, , Ruotsinphytaa, Finland New York, NY "\nM0657, 3, 1, "Backstrom, Mrs. Karl Alfred (Maria Mathilda Gustafsson)", female, 33, 3, 0, 3101278, 15.85, S, , , Ruotsinphytaa, Finland New York, NY "\nM0658, 3, 1, "Baclini, Miss.
```

Identifikasi data

```
user_data = pd.read_csv('titanic-passenger-list.csv')
user_data.head()
```

| user_id | pclass | survived | name | sex | age | sibsp | parch | ticket | fare | cabin | embarked | boat | body | home.dest |
|---------|--------|----------|--------------------------------|--------|-------|-------|-------|--------|----------|---------|----------|------|------|---------------------------------|
| 0 | M0001 | 1 | Allen, Miss. Elisabeth Walton | female | 29.00 | 0 | 0 | 24160 | 211.3375 | B5 | S | 2 | NaN | St Louis, MO |
| 1 | M0002 | 0 | Allison, Master. Hudson Trevor | male | 0.92 | 1 | 2 | 113781 | 151.5500 | C22 C26 | S | 11 | NaN | Montreal, PQ / Chesterville, ON |
| 2 | M0003 | 1 | Allison, Miss. Daniel | female | 2.00 | 1 | 2 | 113781 | 151.5500 | C22 | S | NaN | NaN | Montreal, PQ / Chesterville |

ANALISA

deklarasi user_data untuk membaca data dengan bantuan pandas supaya bisa membaca jenis file csv dengan csv titanic-passenger-list. Kemudian perintah head berfungsi untuk panggil 5 data pertama.

```
user_data.tail()
```

| user_id | pclass | survived | name | sex | age | sibsp | parch | ticket | fare | cabin | embarked | boat | body | home.dest |
|---------|--------|----------|---------------------------|--------|------|-------|-------|--------|---------|-------|----------|------|-------|-----------|
| 1304 | M1305 | 3 | Zabour, Miss. Hileni | female | 14.5 | 1 | 0 | 2665 | 14.4542 | NaN | C | NaN | 328.0 | NaN |
| 1305 | M1306 | 3 | Zabour, Miss. Thamine | female | NaN | 1 | 0 | 2665 | 14.4542 | NaN | C | NaN | NaN | NaN |
| 1306 | M1307 | 3 | Zakarian, Mr. Mapriededer | male | 26.5 | 0 | 0 | 2656 | 7.2250 | NaN | C | NaN | 304.0 | NaN |
| 1307 | M1308 | 3 | Zakarian, Mr. | male | 27.0 | 0 | 0 | 2656 | 7.2250 | NaN | C | NaN | NaN | NaN |

ANALISA

Menampilkan data dengan panggil user_data. tail berfungsi untuk panggil 5 data terakhir.

```
user_data.shape
(1309, 15)
```

ANALISA

Shape digunakan untuk menampilkan dimensi data terapat 1309 baris dan 15 kolom.

```
##Check the data types
user_data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1309 entries, 0 to 1308
Data columns (total 15 columns):
#   Column      Non-Null Count  Dtype
---  -
0   user_id     1309 non-null   object
1   pclass      1309 non-null   int64
2   survived    1309 non-null   int64
3   name        1309 non-null   object
4   sex         1309 non-null   object
5   age         1046 non-null   float64
6   sibsp       1309 non-null   int64
7   parch       1309 non-null   int64
8   ticket      1309 non-null   object
9   fare        1308 non-null   float64
10  cabin       295 non-null    object
11  embarked    1307 non-null   object
12  boat        486 non-null    object
13  body        121 non-null    float64
14  home.dest   745 non-null    object
dtypes: float64(3), int64(4), object(8)
memory usage: 153.5+ KB
```

ANALISA

info() untuk mengetahui informasi data berupa menampilkan tipe data kolom dan ditampilkan dengan secara vertikal

Saved successfully!



merical data only

| | pclass | survived | age | sibsp | parch | fare | body |
|-------|-------------|-------------|-------------|-------------|-------------|-------------|------------|
| count | 1309.000000 | 1309.000000 | 1046.000000 | 1309.000000 | 1309.000000 | 1308.000000 | 121.000000 |
| mean | 2.294882 | 0.381971 | 29.881138 | 0.498854 | 0.385027 | 33.295479 | 160.809917 |
| std | 0.837836 | 0.486055 | 14.413493 | 1.041658 | 0.865560 | 51.758668 | 97.696922 |
| min | 1.000000 | 0.000000 | 0.170000 | 0.000000 | 0.000000 | 0.000000 | 1.000000 |
| 25% | 2.000000 | 0.000000 | 21.000000 | 0.000000 | 0.000000 | 7.895800 | 72.000000 |
| 50% | 3.000000 | 0.000000 | 28.000000 | 0.000000 | 0.000000 | 14.454200 | 155.000000 |
| 75% | 3.000000 | 1.000000 | 39.000000 | 1.000000 | 0.000000 | 31.275000 | 256.000000 |
| max | 3.000000 | 1.000000 | 80.000000 | 8.000000 | 9.000000 | 512.329200 | 328.000000 |

ANALISA

Describe() untuk mengetahui statistik deskriptif data. Hanya kolom yang bertipe numerik yang akan ditampilkan statistiknya.

```
##Check the number of unique users
len(np.unique(user_data.user_id)) #len, untuk menghitung banyaknya data pada file yang digunakan
```

1309

```
user_data.columns.to_series().groupby(user_data.dtypes).groups
```

```
{int64: ['pclass', 'survived', 'sibsp', 'parch'], float64: ['age', 'fare', 'body'], object: ['user_id', 'name', 'sex', 'ticket', 'cabin', 'embarked', 'boat', 'home.dest']}
```

ANALISA

Menampilkan tipe data int64 sesuai dengan kolomnya dan groupby tipe data nya dan ditampilkan secara horizontal

```
##Check for correlations
user_data.corr().abs()
```

| | pclass | survived | age | sibsp | parch | fare | body |
|----------|----------|----------|----------|----------|----------|----------|----------|
| pclass | 1.000000 | 0.312469 | 0.408106 | 0.060832 | 0.018322 | 0.558629 | 0.034642 |
| survived | 0.312469 | 1.000000 | 0.055512 | 0.027825 | 0.082660 | 0.244265 | NaN |
| age | 0.408106 | 0.055512 | 1.000000 | 0.243699 | 0.150917 | 0.178740 | 0.058809 |
| sibsp | 0.060832 | 0.027825 | 0.243699 | 1.000000 | 0.373587 | 0.160238 | 0.099961 |
| parch | 0.018322 | 0.082660 | 0.150917 | 0.373587 | 1.000000 | 0.221539 | 0.051099 |
| fare | 0.558629 | 0.244265 | 0.178740 | 0.160238 | 0.221539 | 1.000000 | 0.043110 |
| body | 0.034642 | NaN | 0.058809 | 0.099961 | 0.051099 | 0.043110 | 1.000000 |

ANALISA

Fungsi corr() untuk menemukan korelasi antar kolom dalam Dataframe menggunakan metode 'Pearson'. Pearson-> koefisien korelasi standar.

```
##Generate summary statistics for all of the data

user_data.describe(datetime_is_numeric=True, include='all')
#NaN: Not a Number
# std menunjukkan kondisi over fitting/under fitting
```

| | user_id | pclass | survived | name | sex | age | sibsp | parch | ticket | fare | cabin | embarked |
|-------|---------|-------------|-------------|----------------------|------|-------------|-------------|-------------|----------|-------------|-------------|----------|
| count | 1309 | 1309.000000 | 1309.000000 | 1309 | 1309 | 1046.000000 | 1309.000000 | 1309.000000 | 1309 | 1308.000000 | 295 | 1307 |
| | | | NaN | 1307 | 2 | NaN | NaN | NaN | 929 | NaN | 186 | 3 |
| top | M0001 | NaN | NaN | Connolly, Miss. Kate | male | NaN | NaN | NaN | CA. 2343 | NaN | C23 C25 C27 | S |
| freq | 1 | NaN | NaN | 2 | 843 | NaN | NaN | NaN | 11 | NaN | 6 | 914 |
| mean | NaN | 2.294882 | 0.381971 | NaN | NaN | 29.881138 | 0.498854 | 0.385027 | NaN | 33.295479 | NaN | NaN |
| std | NaN | 0.837836 | 0.486055 | NaN | NaN | 14.413493 | 1.041658 | 0.865560 | NaN | 51.758668 | NaN | NaN |
| min | NaN | 1.000000 | 0.000000 | NaN | NaN | 0.170000 | 0.000000 | 0.000000 | NaN | 0.000000 | NaN | NaN |
| 25% | NaN | 2.000000 | 0.000000 | NaN | NaN | 21.000000 | 0.000000 | 0.000000 | NaN | 7.895800 | NaN | NaN |
| 50% | NaN | 3.000000 | 0.000000 | NaN | NaN | 28.000000 | 0.000000 | 0.000000 | NaN | 14.454200 | NaN | NaN |
| 75% | NaN | 3.000000 | 1.000000 | NaN | NaN | 39.000000 | 1.000000 | 0.000000 | NaN | 31.275000 | NaN | NaN |

ANALISA

Pandas description() digunakan untuk melihat beberapa detail statistik dasar dimana datetimenya numeric itu True dan data didalamnya termasuk semua dan NaN merupakan data kosong atau null.

```
##Generate skewnes and kurtosis measurements
user_data.skew()

<ipython-input-13-f9de9c8cc610>:2: FutureWarning: Dropping of nuisance columns in DataFrame reductions (with 'numeric_only=None') is deprecated
user_data.skew()
pclass      -0.598647
survived      0.486404
age          0.407675
sibsp        3.844220
parch        3.669078
fare         4.367709
body         0.091739
dtype: float64
```

ANALISA

Skewness adalah asimetri dalam distribusi data karena tidak menunjukkan simetri apa pun dalam data kontinu. Data miring dapat terdiri dari 2 jenis Data miring kanan disebut juga sebagai data miring positif atau data miring kiri disebut juga data miring negatif.

- Kemiringan negatif menunjukkan bahwa ekor berada di sisi kiri distribusi sehingga nilainya negatif.

- Kemiringan positif menunjukkan bahwa ekor berada di sisi kanan distribusi sehingga nilainya positif.

```
user_data.kurt()
```

```
<ipython-input-14-e9bacc564ac7>:1: FutureWarning: Dropping of nuisance columns in DataFrame reductions (with 'numeric_only=None') i
user_data.kurt()
pclass      -1.315079
survived     -1.766112
age          0.146948
sibsp        20.043251
parch        21.541079
fare         27.027986
body         -1.254052
dtype: float64
```

ANALISA

Kurtosis adalah ukuran apakah suatu distribusi berekor berat atau berekor ringan relatif terhadap

Saved successfully!

Data Visualisasi

1. Generate a **Box Plot** for age

Boxplot adalah suatu metode yang digunakan untuk mendeteksi adanya outliers pada suatu data.

Outliers adalah perbedaan sebuah data yang tidak sama seperti kebanyakan data lainnya.

```
user_data['age'].describe()
```

```
count      1046.000000
mean        29.881138
std         14.413493
min          0.170000
25%         21.000000
50%         28.000000
75%         39.000000
max         80.000000
Name: age, dtype: float64
```

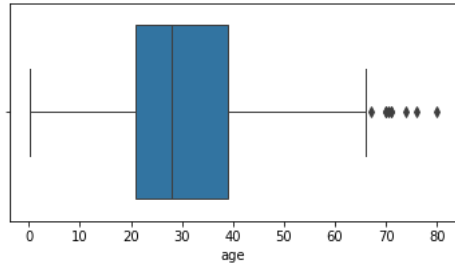
ANALISA

describe() untuk mengetahui statistik deskriptif age atau umur.

```
plt.figure(figsize=(6,3))
sns.boxplot(x=user_data['age'], linewidth=1.0);
```

```
#Informasi yang bisa dibaca dari boxplot pada age:
#nilai terendah di parameter usia kisaran 0
```

```
#nilai median diantara 28/29
#nilai maksimal adalah 67, tetapi di data di atas max 80
# jika mau komputasi, nilai 80 adalah nilai max. Yang disampaikan ke client bisa keduanya.
#kenapa outliers, karena sebaran dari 77 - 80 itu yang beda sendiri, yang lainnya merata berkumpul
```



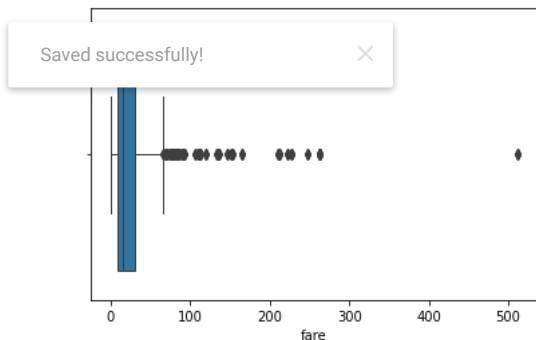
```
##Generate a box plot for fare
user_data['fare'].describe()

count    1308.000000
mean      33.295479
std       51.758668
min        0.000000
25%        7.895800
50%       14.454200
75%       31.275000
max      512.329200
Name: fare, dtype: float64
```

▼ ANALISA

Describe() untuk mengetahui statistik deskriptif fare atau tiket.

```
plt.figure(figsize=(6,4)) #figsize ini untuk mengatur ukuran diagramnya
sns.boxplot(x=user_data['fare'], linewidth=1);
```



ANALISA

Informasi yang bisa dibaca dari boxplot pada fare:

nilai terendah di parameter usia kisaran 0

nilai median diantara 15/20

nilai maksimal adalah 67, tetapi di data di atas max 80

jika mau komputasi, nilai 80 adalah nilai max. Yang disampaikan ke client bisa keduanya.

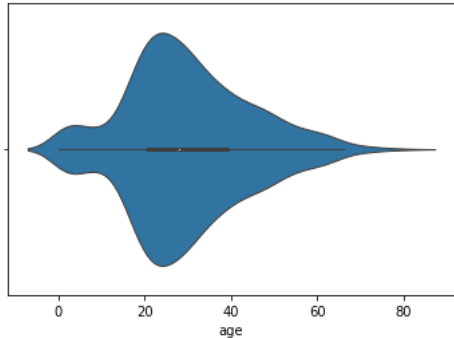
kenapa outliers, karena sebaran dari 82 - 510 itu yang beda sendiri, yang lainnya merata berkumpul.

2. Generate a **violin plot** for age

▼ Violin Plot merupakan penggabungan antara dua metode yaitu boxplot dan Estimasi.

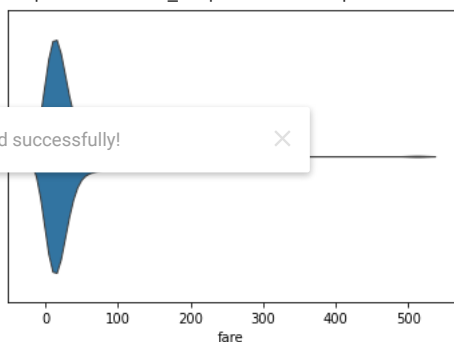
Kepadatan Kernel (KDE). KDE sendiri merupakan sebuah cara yang berguna untuk menganalisa data non-parametrik dengan cara menghitung mengkalkulasikan fungsi kepadatan peluang dari suatu peubah yang acak. Tujuan dari violin plot yaitu untuk memudahkan pengguna menganalisis distribusi data yang kontinyu untuk setiap kategori.

```
sns.violinplot(x = user_data['age'], linewidth=1.0);
##Informasi yang bisa dibaca dari violinplot di bawah ini:
# yang hitam di tengah itu median
# semakin lebar, berarti semakin tinggi probabilitasnya.
# High probability di angka 30an artinya menunjukkan densiti.
#Densiti adalah jarak sebaran data di parameter usia ini.
```



```
##Generate a violin plot for fare
sns.violinplot(x = user_data['fare'], linewidth=1)

<matplotlib.axes._subplots.AxesSubplot at 0x7fc452149a30>
```



ANALISA

Informasi yang bisa dibaca dari violinplot di bawah ini:

yang hitam di tengah itu median

semakin lebar, berarti semakin tinggi probabilitasnya.

High probability di angka 10an artinya menunjukkan densiti.

Densiti adalah jarak sebaran data di parameter usia ini.

3. Generate a **subplot** data survived pclass dan parch

▼ Fungsi **subplots()** mengambil tiga argumen yang menjelaskan layout gambar.

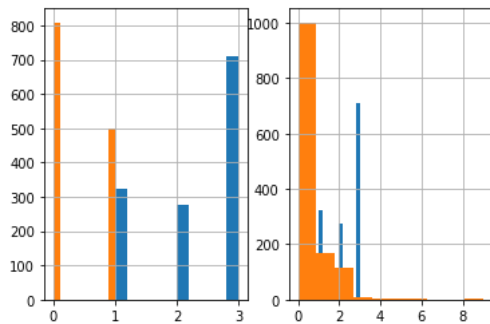
-Layout diatur dalam baris dan kolom, yang diwakili oleh argumen pertama dan kedua.

- Argumen ketiga mewakili indeks plot saat ini.

```
plt.subplot(1,2,1)
user_data['pclass'].hist()
user_data['survived'].hist()

plt.subplot(1,2,2)
user_data['pclass'].hist()
user_data['parch'].hist()

plt.show()
```



ANALISA

Menampilkan dengan menggunakan subplot.

(1,2,1) -> memiliki 1 baris, 2 kolom, dan plot ini adalah plot pertama.

(1,2,2) -> memiliki 1 baris, 2 kolom, dan plot ini adalah plot kedua.

pada plot 1 menampilkan grafik berwarna oren untuk survived dan biru untuk pclass. sedangkan pada plot kedua, warna biru untuk pclass dan oren untuk parch nya.

Saved successfully!

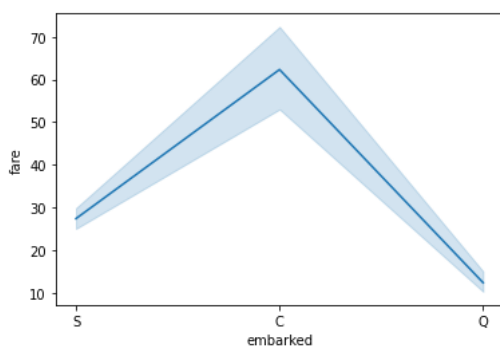


a survived dan pclass

- Line Plot menampilkan informasi berupa rangkaian titik data yang terhubung dengan segmen garis lurus. Line plot dapat digunakan pada dataset yang memiliki nilai kontinu untuk melihat pergerakan data dari waktu ke waktu

```
sns.lineplot(data=user_data, x='embarked',
             y='fare', estimator=np.mean);
```

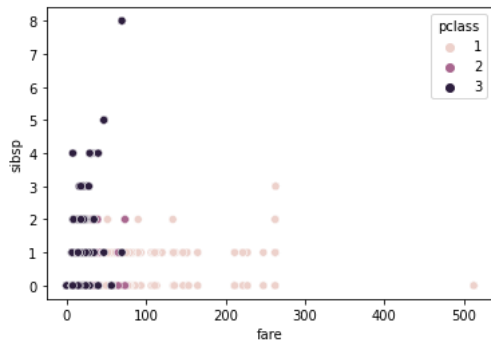
```
# Cara baca line plot
#bisa digunakan untuk melihat rasio tarif setiap pemberangkatan.
#biru muda, itu prediksi
#rata rata tarif untuk embarked S sekitar 28
# rata rata tarif untuk embarked C sekitar 60
# rata rata tarif untuk embarked Q sekitar 10
```



5. Generate Scatter plots comparing tsurvived to sibsp

- Scatter Plot** menunjukkan hubungan antar dua variabel yang ditampilkan pada suatu grafik. Pada
- ▼ **scatter plot** hubungan antar dua variabel ini dapat direpresentasikan dalam pola linear maupun non linear yang menyatakan hubungan dua variabel tersebut positif atau negatif

```
sns.scatterplot(data =user_data, x='fare',
y='sibsp',hue='pclass');
```



pada scatter plot diatas menjadikan fare sebagai x dan sibsp sebagai y dan hue nya yaitu pclass. Dengan menggunakan hue, scatterplot menjadi informatif atau ada variasi warnanya. Outliernya terdapat pada tarif 50 an,90 an, 510 an,270 an dll

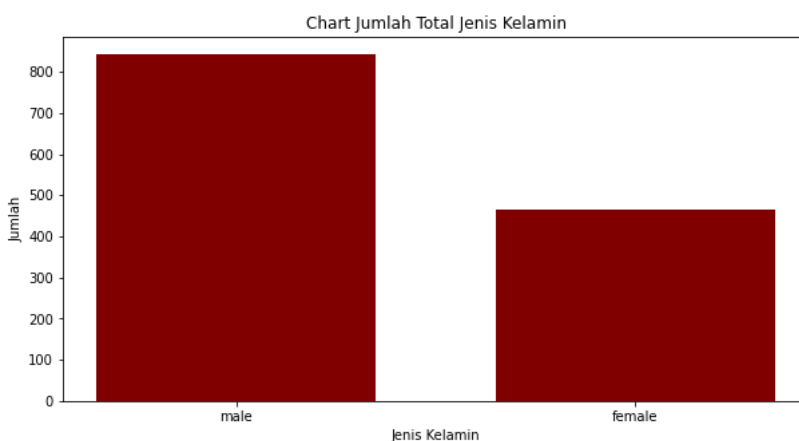
▼ 6. Simple Barchart

```
# menyiapkan data untuk simple barplot
value_sex = count_sex.values()
counts()
```

```
# pembuatan simple barplot
fig = plt.figure(figsize = (10, 5) )
plt.bar(index_sex, value_sex , color = "maroon", width = 0.7)
```

```
plt.title("Chart Jumlah Total Jenis Kelamin") # menambahkan judul
plt.xlabel("Jenis Kelamin") # menambahkan judul di sumbu-x
plt.ylabel("Jumlah") # menambahkan judul di sumbu-y
```

```
plt.show()
```



- ▼ menampilkan barchart dengan membandingkan jenis kelamin female dan male. dengan total female 466, dan total male sebanyak 843

```
# membuat function untuk simple barchart
```

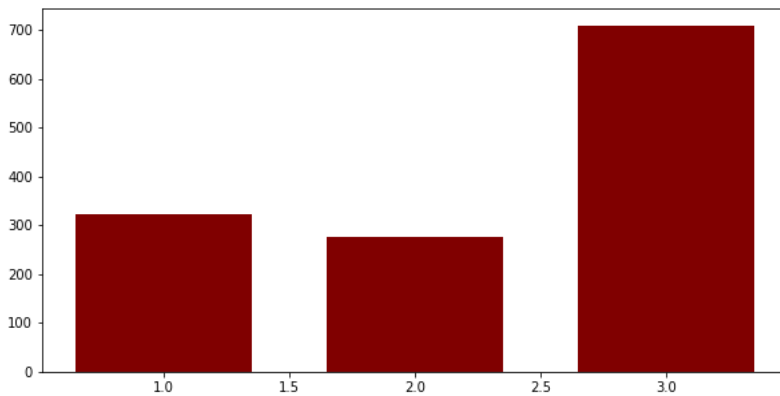
```
def bar_chart(column):
    count = user_data[column].value_counts()

    index = count.index
    values = count.values

    fig = plt.figure(figsize = (10, 5))
    plt.bar(index, values , color = "maroon", width = 0.7)

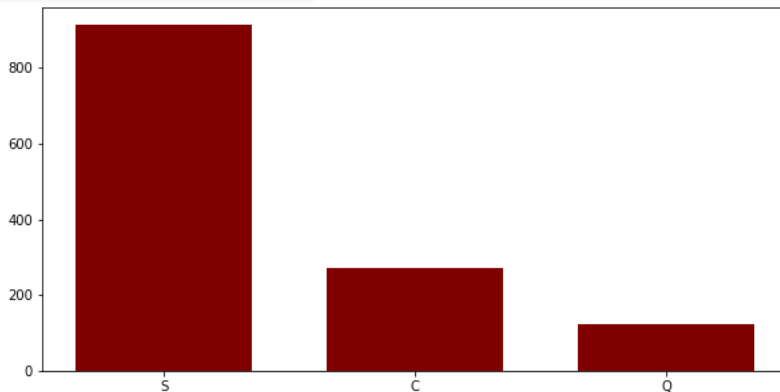
    plt.show()
```

```
## bar chart kelas kapal
bar_chart("pclass")
```



menampilkan barchart dengan menampilkan pclass yang terdiri dari class 1,2, dan 3. class 1 330, class 2 280, dan class 3 710

Saved successfully!



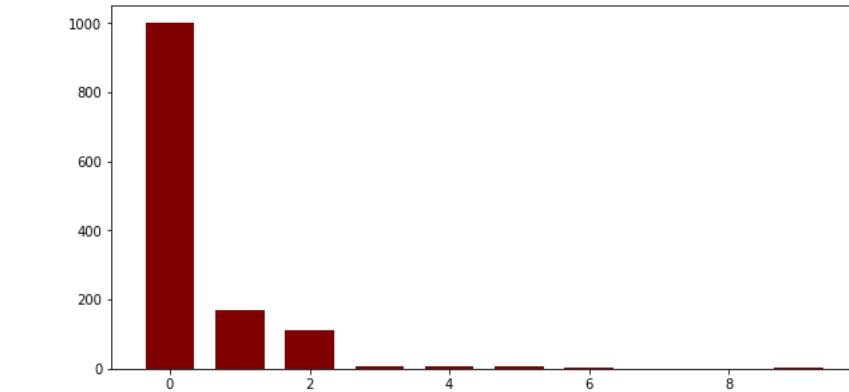
Menampilkan barchart dengan menampilkan keberangkatan yang terdiri dari 3 kategori, yaitu S,C, dan Q. pada S sebanyak 850, C sebanyak 240, dan Q sebanyak 100

```
bar_chart("sibsp")
```



Menampilkan barchart dengan menampilkan sibsp yang terdiri dari 7 kategori, dimana 0 sebanyak

- 850an, 1 300 an, 2 sebanyak 20 an, 3 10 an, 4 sebanyak 15an,5 sebanyak 7 an dan 8 sebanyak 8 an



Menampilkan barchart dengan menampilkan parch yang terdiri dari 8 kategori, dimana 0 sebanyak

- 980an, 1 110 an, 2 sebanyak 80 an, 3 15 an, 4 sebanyak 25an ,5 sebanyak 20 an, 6 sebanyak 10 an dan 8 sebanyak 8 an

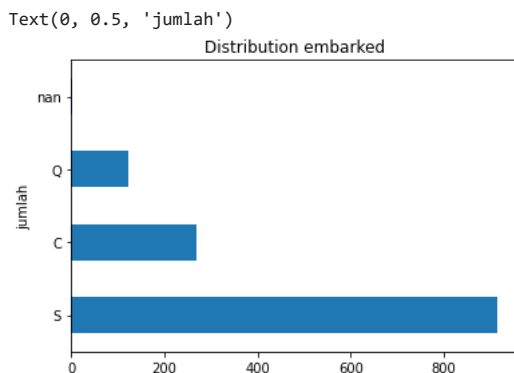
```
## Generate **bar charts** for embarked
user_embarked.value_counts(dropna=False)
```

Saved successfully!

```
S      914
C      270
Q      123
NaN      2
Name: embarked, dtype: int64
```

- menampilkan value dari embarked dimana terdapat null sebanyak 2 buah dan menampilkan tipe datanya

```
# Horizontal bar chart
user_embarked.plot(kind='barh')
plt.title('Distribution embarked');
plt.ylabel("jumlah")
```



- menampilkan bar chart untuk embarked secara horizontal. dimana S sebanyak 900 an, C sebanyak 230 an, dan Q sebanyak 70 an

```
# Exclude Missing Value (Cek lagi)
user_embarked = user_data['embarked'].value_counts()

user_embarked

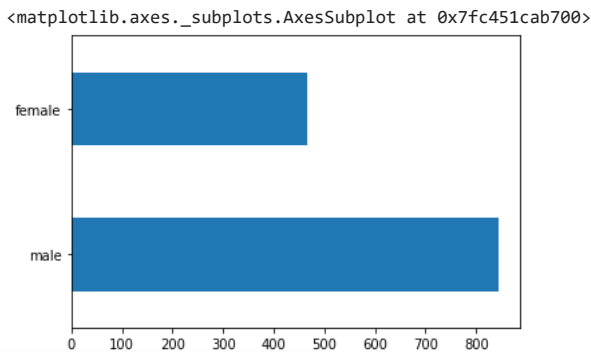
S      914
C      270
Q       123
Name: embarked, dtype: int64
```

▼ kemudian pada embarked nilai null nya sudah tidak ada lagi

```
## Generate **bar charts** for sex
user_sex = user_data['sex'].value_counts(dropna=False)
user_sex

male      843
female    466
Name: sex, dtype: int64

#Exclude missing values
user_data['sex'].value_counts().plot(kind='barh')
```



Saved successfully!

menampilkan jumlah data jenis kelamin menggunakan plot. total female 466, dan total male sebanyak 843

```
# Exclude Missing Value (Cek lagi)
user_sex = user_data['sex'].value_counts()

user_sex

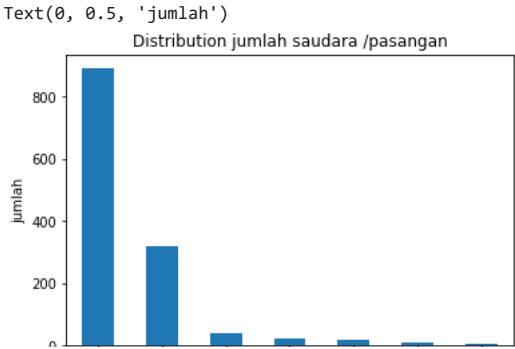
male      843
female    466
Name: sex, dtype: int64
```

▼ Maka nilai missing value nya sudah tidak ada

```
## Generate a bar chart for sibsp
user_sibsp = user_data['sibsp'].value_counts(dropna=False)
user_sibsp

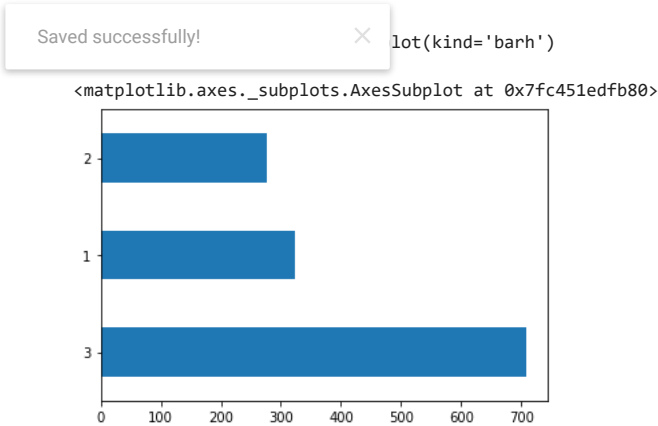
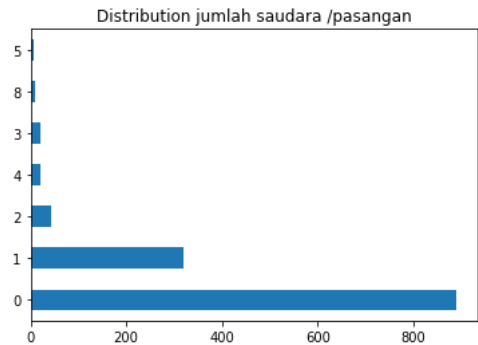
0      891
1      319
2        42
4         22
3         20
8          9
5          6
Name: sibsp, dtype: int64

#Vertical bar chart
user_sibsp.plot(kind='bar')
plt.title('Distribution jumlah saudara /pasangan');
plt.xlabel("sibsp")
plt.ylabel("jumlah")
```



- menampilkan meggunakan bar chart. dimana 0 sebanyak 850an, 1 300 an, 2 sebanyak 20 an, 3 10 an, 4 sebanyak 15an,5 sebanyak 7 an dan 8 sebanyak 8

```
# Horizontal bar chart
user_sibsp.plot(kind='barh')
plt.title('Distribution jumlah saudara /pasangan');
```



- Menampilkan pclass yang terdiri dari kategori 1,2, dan 3. class 330, class 2 280, dan class 3 710

Grouped Barchart / Clustered Barchart

```
user_data.head()
```

| | user_id | pclass | survived | name | sex | age | sibsp | parch | ticket | fare | cabin | embarked | boat | body | home.dest |
|---|---------|--------|----------|--------------------------------|--------|-------|-------|-------|--------|----------|---------|----------|------|------|---------------------------------|
| 0 | M0001 | 1 | 1 | Allen, Miss. Elisabeth Walton | female | 29.00 | 0 | 0 | 24160 | 211.3375 | B5 | S | 2 | NaN | St Louis, MO |
| 1 | M0002 | 1 | 1 | Allison, Master. Hudson Trevor | male | 0.92 | 1 | 2 | 113781 | 151.5500 | C22 C26 | S | 11 | NaN | Montreal, PQ / Chesterville, ON |
| 2 | M0003 | 1 | 0 | Allison, Miss. | female | 2.00 | 1 | 2 | 113781 | 151.5500 | C22 | S | NaN | NaN | Montreal, PQ / Chesterville |

- head digunakan untuk menampilkan 5 data pertama

```
survived_sex = user_data.groupby(['survived', 'sex']).count()['user_id'].reset_index()
survived_sex
```

| | survived | sex | user_id |
|---|----------|--------|---------|
| 0 | 0 | female | 127 |
| 1 | 0 | male | 682 |
| 2 | 1 | female | 339 |
| 3 | 1 | male | 161 |

adanya groupby pada survived, dan jumlah dari user_id nya

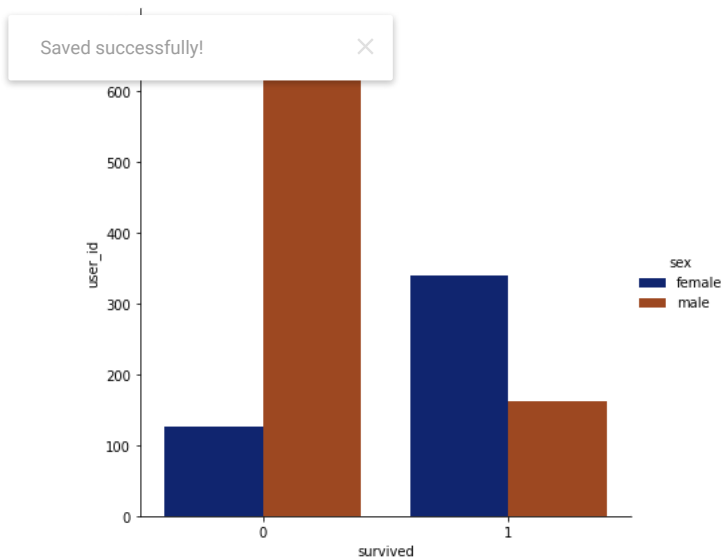
Grouped barchart

```
def grouped_barchart(column):
    survived = user_data.groupby(['survived', column]).count()['user_id'].reset_index()

    g = sns.catplot(
        data = survived, kind = "bar",
        x = "survived", y = "user_id", hue = column,
        palette = "dark", height = 6
    )
```

Dalam melakukan pengrupan dengan menjadikan survived sebagai induk yang akan digunakan sebagai pembandingnya

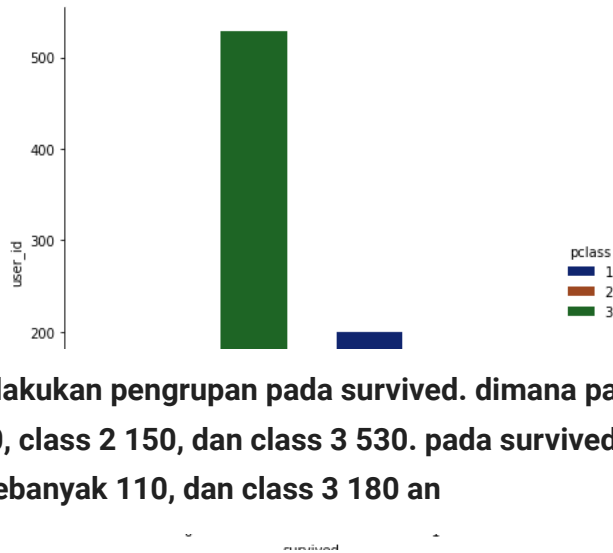
```
grouped_barchart("sex")
```



melakukan pengrupan dimana menampilkan setiap pengrupan survived pada jenis kelamin. pada

- survived 0 total male sebanyak 670, female sebanyak 130 an, dan pada survived 1 total female sebanyak 330 an dan male sebanyak 150 an

```
grouped_barchart("pclass")
```



Melakukan pengrupan pada survived. dimana pada survived 0 memiliki 3 kategori pclasss. class 1 120, class 2 150, dan class 3 530. pada survived 2 memiliki 3 kategori pclasss. class 1 200, class 2 sebanyak 110, dan class 3 180 an

7. Histogram

Plot histograms for all numerical columns

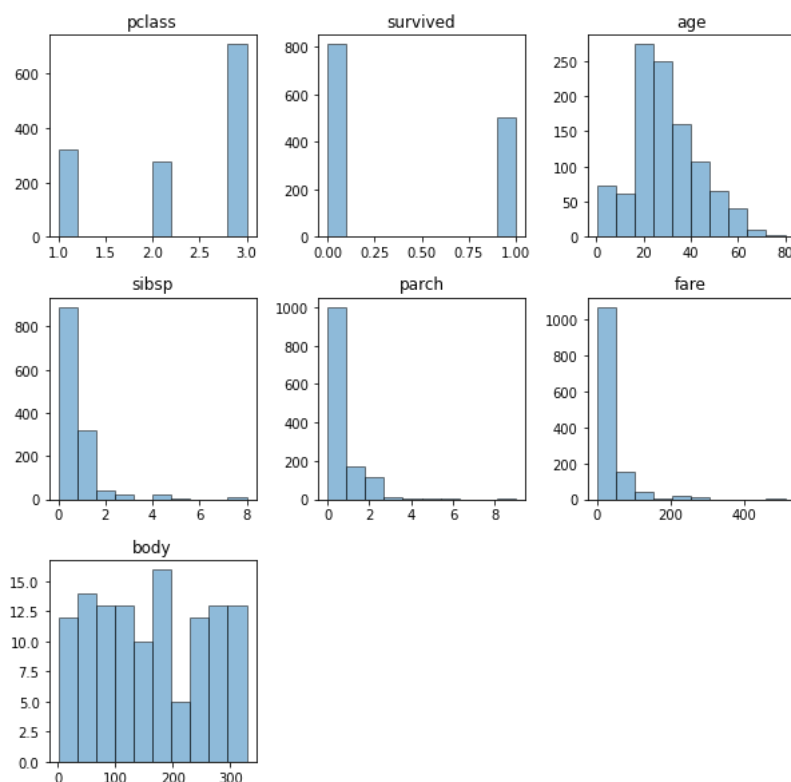
Histogram adalah grafik yang menunjukkan distribusi frekuensi. dimana grafik yang menunjukkan jumlah pengamatan dalam setiap interval yang diberikan.

Fungsi hist() akan menggunakan array angka untuk membuat histogram, array dikirim ke fungsi sebagai argumen.

Saved successfully!

```
user_data.select_dtypes(exclude=['object'])
```

```
user_data_for_hist.hist(figsize = (10,10), alpha = 0.5,edgecolor='black', grid= False);
```

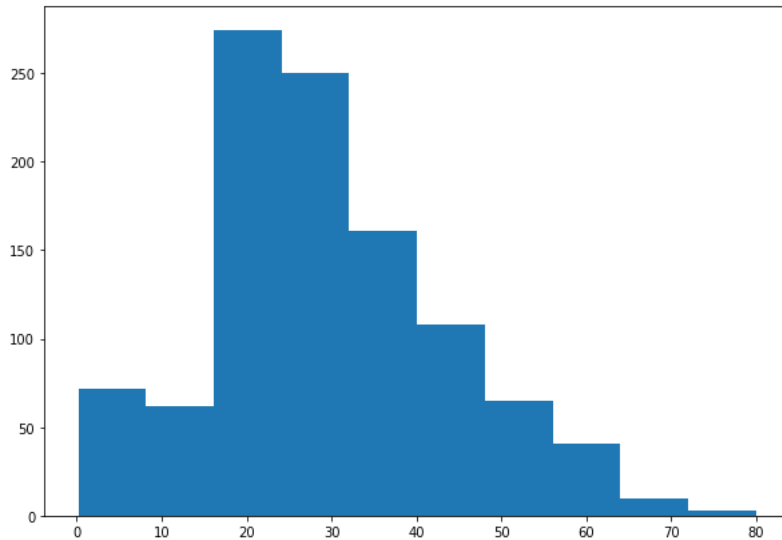


menampilkan semua jenis tipe data yang tidak termasuk object

pada age terdapat 70 an yang berumur 0-7. terdapat 60 an yang berumur 8- 15. terdapat 280 an yang berumur 16-23. terdapat 245 an yang berumur 24-33. terdapat 155 an yang berumur 33-40. terdapat 110 an yang berumur 48-53. terdapat 50 an yang berumur 54-63. terdapat 30 an yang berumur 64-74, dan terdapat 10 yang berumur 75-80

```
fig, ax = plt.subplots(figsize = (10, 7))
ax.hist(user_data.age)
```

```
plt.show()
```



menampilkan data age dengan menggunakan subplot. terdapat 70 an yag berumur 1-8. terdapat

Saved successfully!

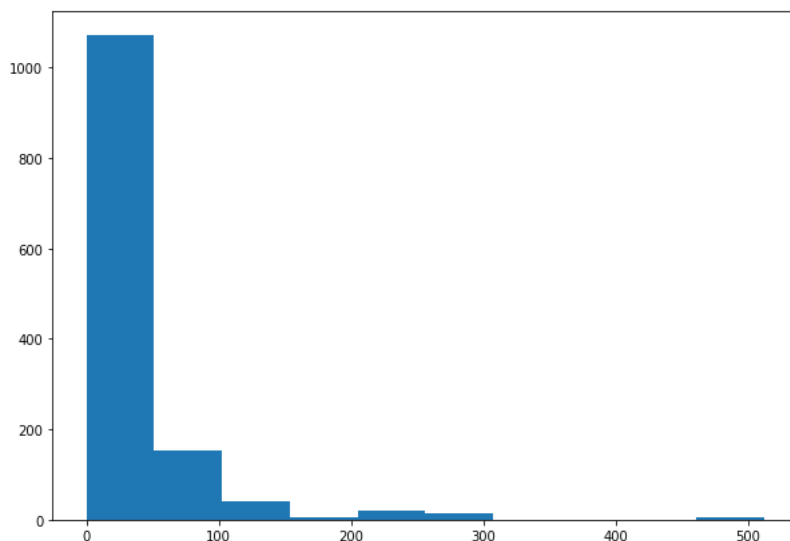


terdapat 280 an yang berumur 17-25. terdapat 235 an yang berumur

20-32. terdapat 180 an yang berumur 33-40. terdapat 110 an yang berumur 41-47. terdapat 55 an yang berumur 47-53. terdapat 30 an yang berumur 54-63. terdapat 15 an yang berumur 64-72. dan terdapat 7 yang berumur 73-79.

```
fig, ax = plt.subplots(figsize = (10, 7))
ax.hist(user_data.fare)
```

```
plt.show()
```



menampilkan data fare. terdapat 1100 an antara 0-45. terdapat 80 an antara 46-100. terdapat 30 an antara 101-150. terdapat 15 antara 151-205. terdapat 20 an antara 206-250. terdapat 18

antara 251-305. terdapat 10 an antara 460-510 an

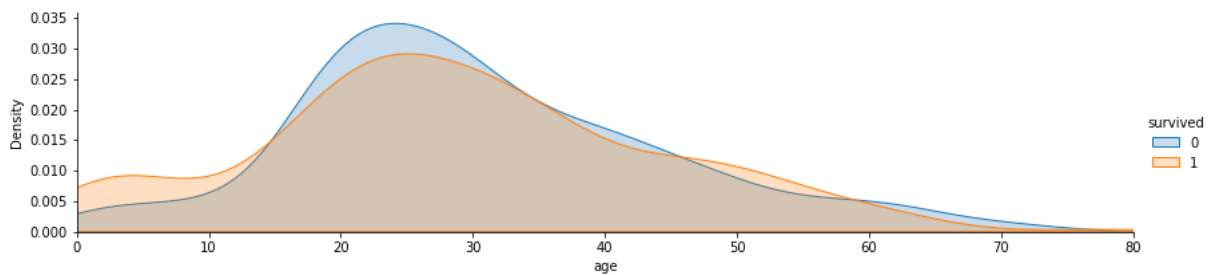
8. KDE Plot (Kernel Density Estimate)

mewakili data menggunakan kurva kepadatan probabilitas kontinu dalam satu atau lebih dimensi.

Cara non-parametrik untuk memperkirakan fungsi kepadatan probabilitas (PDF) dari variabel acak.

```
facet = sns.FacetGrid(user_data, hue="survived", aspect=4)
facet.map(sns.kdeplot, 'age', shade= True)
facet.set(xlim=(0, user_data['age'].max()))
facet.add_legend()
```

```
plt.show()
```



dimana menampilkan density max age dengan survived. pada umur 0-15 survived 0 terdapat pada

- max 0,007. pada umur 61-77 max densitynya mencapai 0,003. pada survived 1 umur 16-33 max densitynya mencapai 0,033. pada umur 35-43 max densitynya mencapai 0,0018.

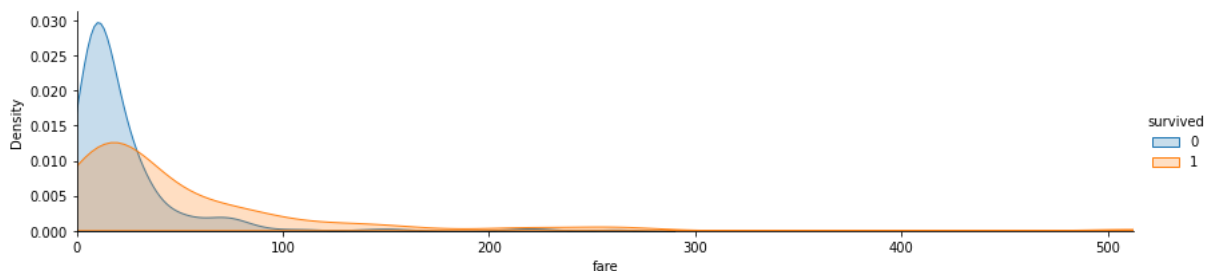
Saved successfully!



```
="survived", aspect=4)
```

```
facet.map(sns.kdeplot, 'fare', shade= True)
facet.set(xlim=(0, user_data['fare'].max()))
facet.add_legend()
```

```
plt.show()
```



dimana menampilkan density max fare dengan survived. pada survived 0 fare 0-30 an max density nya 0,029. pada survived 1 max densitynya 0,009

Generate a heatmap for the feature correlations

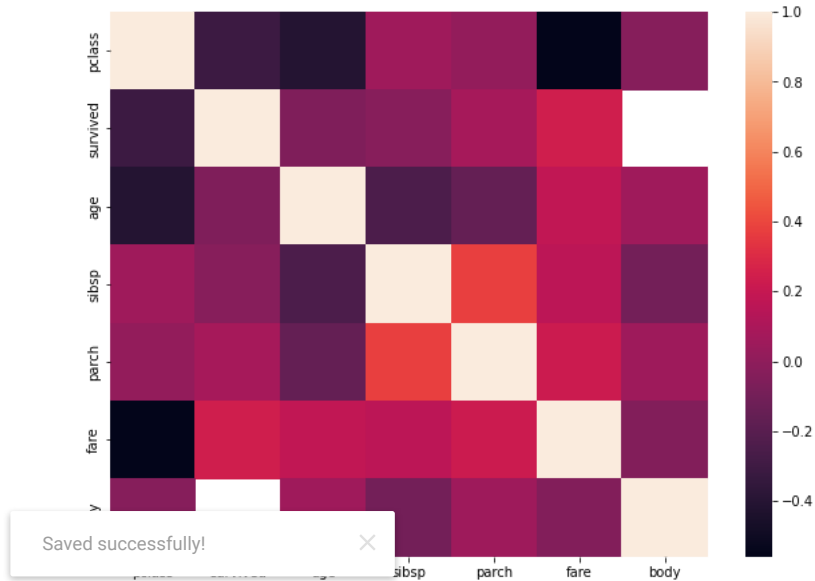
Heatmap merupakan pemetaan dengan menampilkan data dengan cara representasi warna yang berbeda-beda

```
corr_matrix=user_data.corr()
corr_matrix
```

| | pclass | survived | age | sibsp | parch | fare | body |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| pclass | 1.000000 | -0.312469 | -0.408106 | 0.060832 | 0.018322 | -0.558629 | -0.034642 |
| survived | -0.312469 | 1.000000 | -0.055512 | -0.027825 | 0.082660 | 0.244265 | NaN |
| age | -0.408106 | -0.055512 | 1.000000 | -0.243699 | -0.150917 | 0.178740 | 0.058809 |
| sibsp | 0.060832 | -0.027825 | -0.243699 | 1.000000 | 0.373587 | 0.160238 | -0.099961 |
| parch | 0.018322 | 0.082660 | -0.150917 | 0.373587 | 1.000000 | 0.221539 | 0.051099 |
| fare | -0.558629 | 0.244265 | 0.178740 | 0.160238 | 0.221539 | 1.000000 | -0.043110 |

▼ menampilkan korelasi yang tipe datanya numerik

```
fig = plt.figure(figsize=(10,7.5))
sns.heatmap(corr_matrix);
```

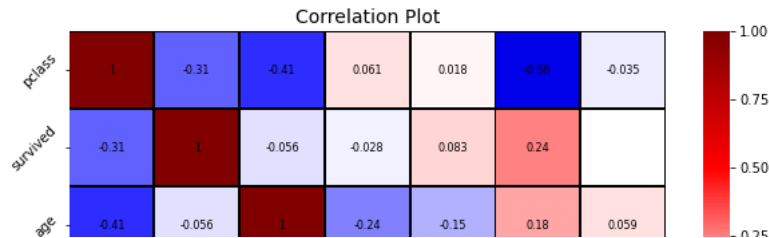


▼ Format the heatmap to make it easier to read

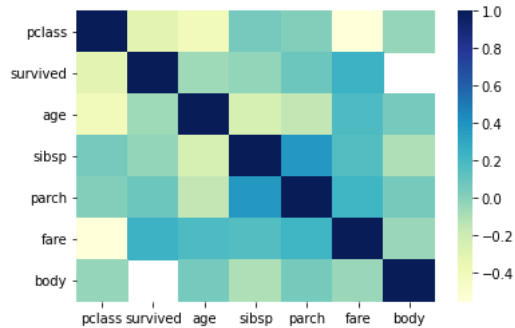
```
fig = plt.figure(figsize=(10, 7.5))

sns.heatmap(corr_matrix,
            cmap='seismic',
            linewidths=0.75,
            linecolor='black',
            cbar=True,
            vmin=-1,
            vmax=1,
            annot=True,
            annot_kws={'size':8, 'color': 'black'}) #besar tulisan dalam kotak
plt.tick_params(labelsize=10, rotation=45)
plt.title('Correlation Plot', size = 14);

# maksud dari diagonal(ygn warna merah marun, korelasi pada dirinya sendiri.
# maksud dari term duration dan term deposit warnanya merah merakah, karena korelasi nya tinggi
```



```
sns.heatmap(user_data.corr(), cmap="YlGnBu")
plt.show()
```



▼ Mengisi Missing Value

```
user_data.shape
```

```
(1309, 15)
```

```
user_data.isnull().sum()
```

```
user_id      0
pclass      0
```

Saved successfully!

```
age         263
sibsp       0
parch       0
ticket      0
fare        1
cabin     1014
embarked    2
boat       823
body       1188
home.dest   564
dtype: int64
```

disini terdapat missing value sebanyak 7 dan nilai nya dijumlahkan

▼ Identify the percentage of missing values for each feature

```
percent_missing = user_data.isnull().mean()
percent_missing
```

```
user_id      0.000000
pclass      0.000000
survived     0.000000
name        0.000000
sex         0.000000
age        0.200917
sibsp       0.000000
parch       0.000000
ticket      0.000000
fare        0.000764
cabin       0.774637
embarked    0.001528
boat        0.628724
body        0.907563
home.dest   0.430863
dtype: float64
```

menampilkan rata-rata dari setiap kolom menggunakan persen sehingga diketahui missing valuenya ada 7

▼ Generate a missing value report

```
def missing_value_pct_df(data):
    """Create a DataFrame to summarize missing values."""
    percent_missing = data.isnull().mean()
    missing_value_df = pd.DataFrame(percent_missing).reset_index()
    missing_value_df = missing_value_df.rename(columns = {'index': 'column_name',
    0: 'percent_missing'})
    # Multiply by 100 and round to 2 decimal places.
    missing_value_df['percent_missing'] = missing_value_df['percent_missing'].apply(lambda x: round(x * 100, 2))
    missing_value_df = missing_value_df.sort_values(by = ['percent_missing'],ascending = False)
    return missing_value_df
```

```
missing_value_df = missing_value_pct_df(user_data)
missing_value_df
```

| | column_name | percent_missing | |
|----|-------------|-----------------|--|
| 13 | body | 90.76 | |
| 10 | cabin | 77.46 | |
| 12 | boat | 62.87 | |
| 14 | home.dest | 43.09 | |
| 5 | age | 20.09 | |
| 11 | embarked | 0.15 | |
| 9 | fare | 0.08 | |
| 0 | user_id | 0.00 | |
| | survived | 0.00 | |
| 3 | name | 0.00 | |
| 4 | sex | 0.00 | |
| 6 | sibsp | 0.00 | |
| 7 | parch | 0.00 | |
| 8 | ticket | 0.00 | |

Saved successfully!

Menampilkan missing value dengan persen dari yang paling besar ke yang paling kecil

▼ **bold text**##Remove features with a high percentage of missing values

```
# Threshold above which to drop feature.
threshold = 80
cols_to_drop = list(missing_value_df[missing_value_df['percent_missing'] \
> threshold]['column_name'])
print('Number of features to drop:',
missing_value_df[missing_value_df['percent_missing'] > threshold].shape[0])
print(f'Features with missing values greater than {threshold}%:',cols_to_drop)
```

```
Number of features to drop: 1
Features with missing values greater than 80%: ['body']
```

Disini menghapus kolom yang missing valuenya besar dari 80. sehingga kolom body akan dihapus

```
user_data_cleaned = user_data.drop(cols_to_drop, axis = 1)
```

▼ Fungsi drop() digunakan untuk menghapus label tertentu dari baris atau kolom.

Hapus baris atau kolom dengan menentukan nama label dan sumbu yang sesuai, atau dengan menentukan langsung indeks atau nama kolom dengan menghapus label dari indeks 1

```
# Confirm feature was dropped.
# Kemudian mengecek kembali apakah drop value tadi sudah tidak ada
missing_value_df = missing_value_pct_df(user_data_cleaned)
missing_columns = list(missing_value_df[missing_value_df['percent_missing'] \
> 0]['column_name'])
print('Number of features with missing values:',len(missing_columns))

Number of features with missing values: 6
```

Identify numerical data with missing values

```
dtypes = ['int64', 'float64']
numerical_columns = list(user_data_cleaned.select_dtypes(dtypes).columns)
print('Numerical features with missing values:',
list(set(numerical_columns).intersection(missing_columns)))

Numerical features with missing values: ['age', 'fare']
```

disini menampilkan missing value yang numerical seperti int64 dan float64

Impute missing data values for age

```
# Find a sample user with missing value
sample_user = user_data_cleaned[user_data_cleaned['age']. \
isnull()].sample(1).user_id
sample_user
```

672 M0673

Saved successfully!

Menampilkan sample_user dengan user_data_cleaned dengan fungsi isnull() memberikan nilai sample dengan menggunakan user_id

```
# Print mean of age.
print('Mean age:',round(user_data_cleaned['age'].mean(), 2))
# Impute missing values for age with mean.
user_data_cleaned['age'].fillna(round(user_data_cleaned['age'].mean(),2),
inplace = True)

Mean age: 29.88
```

Menampilkan rata-rata age

```
user_data_cleaned[user_data_cleaned.user_id.isin(sample_user)]['age']

672 29.88
Name: age, dtype: float64
```

Replace missing values for Fare with 0

```
user_data_cleaned['fare'].fillna(0, inplace = True)

user_data_cleaned[user_data_cleaned.user_id.isin(sample_user)]['fare']

672 7.2292
Name: fare, dtype: float64
```

Identify categorical data with missing values

```
categorical_columns = list(user_data_cleaned.select_dtypes(['object']).columns)
print('Categorical features with missing values:',
list(set(categorical_columns).intersection(missing_columns)))

Categorical features with missing values: ['home.dest', 'cabin', 'boat', 'embarked']
```

Menampilkan missing value yang kategorikal kolomnya tipe datanya object yaitu home.dest, cabin, embarked, dan juga boat

▼ Replace categorical missing values with 'Unknown'

```
user_data_cleaned.cabin.fillna('Unknown', inplace = True)
user_data_cleaned.boat.fillna('Unknown', inplace = True)
user_data_cleaned.embarked.fillna('Unknown', inplace = True)
```

▼ mengganti missing value dengan nilai unknown dari cabin, boat, dan embarked

```
user_data_cleaned.cabin.value_counts()

Unknown      1014
C23 C25 C27      6
G6              5
B57 B59 B63 B66      5
C22 C26          4
...
E63              1
B102             1
B39              1
D40              1
F38              1
Name: cabin, Length: 187, dtype: int64
```

Saved successfully!



n dari cabin

▼ Check if there are any other missing values

```
missing_value_df = missing_value_pct_df(user_data_cleaned)
missing_columns = list(missing_value_df[missing_value_df['percent_missing'] \
> 0]['column_name'])
print('Number of features with missing values:', len(missing_columns))
print('Features with missing values:', missing_columns)

Number of features with missing values: 1
Features with missing values: ['home.dest']
```

Mengecek kembali apakah masih ada yang missing value. yaitu masih ada 1 home.dest

▼ Remove all rows where home.dest is missing

```
print('Number of users with corrupted data:',
user_data_cleaned[user_data_cleaned['home.dest']. \
isnull()].shape[0])

Number of users with corrupted data: 564

# Remove corrupted data.
users_data_cleaned = \
user_data_cleaned[~user_data_cleaned['home.dest'].isnull()]
```

▼ Menghapus corrupte data pada kolom home.dest yang nilainya null

```
# Check to see if any corrupted rows remain.
print('Number of users with corrupted data:',
```



```
user_data_cleaned[user_data_cleaned['home.dest']. \
isnull()].shape[0])
```

Number of users with corrupted data: 564

▼ Perform one last check for missing values

```
missing_value_df = missing_value_pct_df(user_data_cleaned)
missing_columns = \
list(missing_value_df[missing_value_df['percent_missing'] \
> 0]['column_name'])
print('Number of features with missing values:',
len(missing_columns))
```

Number of features with missing values: 1

```
user_data.isnull().sum()
```

```
user_id      0
pclass      0
survived     0
name         0
sex         0
age        263
sibsp       0
parch       0
ticket      0
fare        1
cabin     1014
embarked    2
boat       823
body       1188
home.dest   564
dtype: int64
```

▼ Kemudian masih ada 7 yang masih missing value

Saved successfully! X

```
user_data[user_data['age'].isnull()]
```

| | user_id | pclass | survived | name | sex | age | sibsp | parch | ticket | fare | cabin | embarked | boat | body | home.dest |
|-----|---------|--------|----------|---|--------|-----|-------|-------|----------|---------|-------|----------|------|------|------------------|
| 15 | M0016 | 1 | 0 | Baumann, Mr. John D | male | NaN | 0 | 0 | PC 17318 | 25.9250 | NaN | S | NaN | NaN | New York, NY |
| 37 | M0038 | 1 | 1 | Bradley, Mr. George ("George Arthur Brayton") | male | NaN | 0 | 0 | 111427 | 26.5500 | NaN | S | 9 | NaN | Los Angeles, CA |
| 40 | M0041 | 1 | 0 | Brewe, Dr. Arthur Jackson | male | NaN | 0 | 0 | 112379 | 39.6000 | NaN | C | NaN | NaN | Philadelphia, PA |
| 46 | M0047 | 1 | 0 | Cairns, Mr. Alexander | male | NaN | 0 | 0 | 113798 | 31.0000 | NaN | S | NaN | NaN | NaN |
| 59 | M0060 | 1 | 1 | Cassebeer, Mrs. Henry Arthur Jr (Eleanor Genev... | female | NaN | 0 | 0 | 17770 | 27.7208 | NaN | C | 5 | NaN | New York, NY |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | | | | Williams, Mr. | | | | | A / E | | | | | | |

```
mean_age = user_data['age'].mean()
mean_age
```

29.881137667304014

▼ Menampilkan rata rata age atau umur

```
user_data['age'] = user_data["age"].fillna(mean_age)
```

```
user_data[user_data['age'].isnull()]
```

| user_id | pclass | survived | name | sex | age | sibsp | parch | ticket | fare | cabin | embarked | boat | body | home.dest |
|---------|--------|----------|------|-----|-----|-------|-------|--------|------|-------|----------|------|------|-----------|
|---------|--------|----------|------|-----|-----|-------|-------|--------|------|-------|----------|------|------|-----------|



```
user_data[user_data['age'].index == 15]
```

| user_id | pclass | survived | name | sex | age | sibsp | parch | ticket | fare | cabin | embarked | boat | body | home.dest | |
|---------|--------|----------|------|---------------------|------|-----------|-------|--------|----------|--------|----------|------|------|-----------|--------------|
| 15 | M0016 | 1 | 0 | Baumann, Mr. John D | male | 29.881138 | 0 | 0 | PC 17318 | 25.925 | NaN | S | NaN | NaN | New York, NY |

▼ Menampilkan value index yang ke 15

```
user_data.isnull().sum()
```

```
user_id      0
pclass      0
survived     0
name         0
sex          0
age          0
sibsp        0
parch        0
ticket       0
fare         1
cabin      1014
embarked     2
boat         823
body        1188
home.dest    564
dtype: int64
```

**Maka missing value pada age sudah tidak ada lagi **

▼ Missing Value Data Fare

Saved successfully!



```
mean_fare = user_data['fare'].mean()
```

```
user_data['fare'] = user_data['fare'].fillna(mean_fare)
```

▼ Kemudian menampilkan rata-rata dari fare dan mengecek missing value fare

```
user_data.isnull().sum()
```

```
user_id      0
pclass      0
survived     0
name         0
sex          0
age          0
sibsp        0
parch        0
ticket       0
fare         0
cabin      1014
embarked     2
boat         823
body        1188
home.dest    564
dtype: int64
```

Maka missing value pada fare sudah tidak ada

▼ Missing Value Data Cabin

```
user_data[user_data['cabin'].isnull()]
```

| | user_id | pclass | survived | name | sex | age | sibsp | parch | ticket | fare | cabin | embarked | boat | body | home.de |
|------|---------|--------|----------|------------------------------|--------|-----------|-------|-------|----------|----------|-------|----------|------|-------|---------------------|
| 9 | M0010 | 1 | 0 | Artagaveytia, Mr. Ramon | male | 71.000000 | 0 | 0 | PC 17609 | 49.5042 | NaN | C | NaN | 22.0 | Montevideo, Uruguay |
| 13 | M0014 | 1 | 1 | Barber, Miss. Ellen "Nellie" | female | 26.000000 | 0 | 0 | 19877 | 78.8500 | NaN | S | 6 | NaN | Netherlands |
| 15 | M0016 | 1 | 0 | Baumann, Mr. John D | male | 29.881138 | 0 | 0 | PC 17318 | 25.9250 | NaN | S | NaN | NaN | New York, USA |
| 23 | M0024 | 1 | 1 | Bidois, Miss. Rosalie | female | 42.000000 | 0 | 0 | PC 17757 | 227.5250 | NaN | C | 4 | NaN | Netherlands |
| 25 | M0026 | 1 | 0 | Birnbaum, Mr. Jakob | male | 25.000000 | 0 | 0 | 13905 | 26.0000 | NaN | C | NaN | 148.0 | San Francisco, USA |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 1304 | M1305 | 3 | 0 | Zabour, Miss. Hileni | female | 14.500000 | 1 | 0 | 2665 | 14.4542 | NaN | C | NaN | 328.0 | Netherlands |

▼ Menampilkan data yang value cabinnya null atau kosong

```
user_data['cabin'].value_counts()

C23 C25 C27      6
G6              5
B57 B59 B63 B66  5
F4              4
F33            4
..             ..
C132            1
E60             1
B52 B54 B56     1
C49             1
F38             1
Name: cabin, Length: 186, dtype: int64
```

▼ Menampilkan ienis cabin dengan panjang data dan tipe data

Saved successfully!

×

```
mode_cabin = user_data['cabin'].mode()[0]
mode_cabin

'C23 C25 C27'

user_data['cabin'] = user_data['cabin'].fillna(mode_cabin)

user_data[user_data['cabin'].isnull()]
```

| user_id | pclass | survived | name | sex | age | sibsp | parch | ticket | fare | cabin | embarked | boat | body | home.dest |
|---------|--------|----------|------|-----|-----|-------|-------|--------|------|-------|----------|------|------|-----------|
|---------|--------|----------|------|-----|-----|-------|-------|--------|------|-------|----------|------|------|-----------|



```
user_data.isnull().sum()

user_id      0
pclass       0
survived     0
name         0
sex          0
age          0
sibsp        0
parch        0
ticket       0
fare         0
cabin        0
embarked     2
boat        823
body       1188
home.dest    564
dtype: int64
```

Maka missing value pada cabin sudah tidak ada

▼ Missing Value Data Embarked

```
user_data[user_data['embarked'].isnull()]
```

| | user_id | pclass | survived | name | sex | age | sibsp | parch | ticket | fare | cabin | embarked | boat | body | home.dest |
|-----|---------|--------|----------|------------------------------------|--------|------|-------|-------|--------|------|-------|----------|------|------|----------------|
| 168 | M0169 | 1 | 1 | Icard, Miss. Amelie | female | 38.0 | 0 | 0 | 113572 | 80.0 | B28 | NaN | 6 | NaN | NaN |
| 284 | M0285 | 1 | 1 | Stone, Mrs. George Nelson (Martha) | female | 62.0 | 0 | 0 | 113572 | 80.0 | B28 | NaN | 6 | NaN | Cincinatti, OH |

▼ Menampilkan data yang embarked nya null

```
user_data['embarked'].value_counts()

S    914
C    270
Q    123
Name: embarked, dtype: int64
```

▼ Menampilkan jumlah nilai embarked dan tipe datanya

```
mode_embarked = user_data['embarked'].mode()[0]
mode_embarked

'S'

user_data['embarked'] = user_data['embarked'].fillna(mode_embarked)

user_data.isnull().sum()

user_id      0
pclass       0
survived     0
name         0
sex          0
age          0
fare         0
cabin        0
embarked     0
boat        823
body        1188
home.dest    564
dtype: int64
```

Saved successfully!

Maka missing value pada embarked sudah tidak ada

▼ Missing Value Data Boat

```
user_data[user_data['boat'].isnull()]
```

| | user_id | pclass | survived | name | sex | age | sibsp | parch | ticket | fare | cabin | embarked | boat | body | home.de |
|---|---------|--------|----------|---|--------|-----------|-------|-------|----------|----------|-------------|----------|------|-------|----------------------|
| 2 | M0003 | 1 | 0 | Allison, Miss. Helen Loraine | female | 2.000000 | 1 | 2 | 113781 | 151.5500 | C22 C26 | S | NaN | NaN | Montre P Chestervi (|
| 3 | M0004 | 1 | 0 | Allison, Mr. Hudson Joshua Creighton | male | 30.000000 | 1 | 2 | 113781 | 151.5500 | C22 C26 | S | NaN | 135.0 | Montre P Chestervi (|
| 4 | M0005 | 1 | 0 | Allison, Mrs. Hudson J C (Bessie Waldo Daniels) | female | 25.000000 | 1 | 2 | 113781 | 151.5500 | C22 C26 | S | NaN | NaN | Montre P Chestervi (|
| 7 | M0008 | 1 | 0 | Andrews, Mr. Thomas Jr | male | 39.000000 | 0 | 0 | 112050 | 0.0000 | A36 | S | NaN | NaN | Belfast, |
| 9 | M0010 | 1 | 0 | Artagaveytia, Mr. Ramon | male | 71.000000 | 0 | 0 | PC 17609 | 49.5042 | C23 C25 C27 | C | NaN | 22.0 | Montevidei Urugu |

▼ menampilkan data dengan mengecek missing value berdasarkan kolom boat

```
user_data['boat'].value_counts()

13      39
C       38
15      37
14      33
4       31
10      29
5       27
3       26
9       25
11      25
16      23
8       23
7       23
D       20
6       20
12      19
2       13
A       11
B        9
1        5
5 7       2
C D        2
13 15      2
5 9         1
8 10        1
13 15 B     1
15 16       1
Name: boat, dtype: int64
```

▼ Menampilkan jumlah dari nama boat dan tipe datanya

```
mode_boat = user_data['boat'].mode()[0]
mode_boat
```

Saved successfully!

```
user_data['boat'] = user_data['boat'].fillna(mode_boat)
```

```
user_data.isnull().sum()
```

```
user_id      0
pclass      0
survived     0
name         0
sex          0
age          0
sibsp       0
parch       0
ticket       0
fare        0
cabin       0
embarked     0
boat        0
body      1188
home.dest   564
dtype: int64
```

Saat dicek lagi maka missing value pada boat sudah tidak ada

▼ Missing Value Data Body

```
user_data[user_data['body'].isnull()]
```

| | user_id | pclass | survived | name | sex | age | sibsp | parch | ticket | fare | cabin | embarked | boat | body | home.dest |
|---|---------|--------|----------|--------------------------------|--------|-----------|-------|-------|--------|----------|---------|----------|------|------|------------------------------------|
| 0 | M0001 | 1 | 1 | Allen, Miss. Elisabeth Walton | female | 29.000000 | 0 | 0 | 24160 | 211.3375 | B5 | S | 2 | NaN | St Louis, MO |
| 1 | M0002 | 1 | 1 | Allison, Master. Hudson Trevor | male | 0.920000 | 1 | 2 | 113781 | 151.5500 | C22 C26 | S | 11 | NaN | Montreal, PQ, Chesterville, Canada |
| 2 | M0003 | 1 | 0 | Allison, Miss. Helen Loraine | female | 2.000000 | 1 | 2 | 113781 | 151.5500 | C22 C26 | S | 13 | NaN | Montreal, PQ, Chesterville, Canada |

▼ menampilkan semua data berdasarkan mengecek missing value pada kolom body

```
mean_body = user_data['body'].mean()
mean_body

160.8099173553719
```

▼ menampilkan rata-rata dari kolom body

```
user_data['body'] = user_data["body"].fillna(mean_body)

user_data[user_data['body'].isnull()]
```

| user_id | pclass | survived | name | sex | age | sibsp | parch | ticket | fare | cabin | embarked | boat | body | home.dest |
|---------|--------|----------|------|-----|-----|-------|-------|--------|------|-------|----------|------|------|-----------|
|---------|--------|----------|------|-----|-----|-------|-------|--------|------|-------|----------|------|------|-----------|

```
user_data[user_data['body'].index == 15]
```

Saved successfully!

| | name | sex | age | sibsp | parch | ticket | fare | cabin | embarked | boat | body | home.dest | | | |
|----|-------|-----|-----|-------------------|-------|-----------|------|-------|----------|--------|---------|-----------|----|------------|--------------|
| 15 | M0016 | 1 | 0 | Baumann, Mr. John | male | 29.881138 | 0 | 0 | PC 17318 | 25.925 | C23 C25 | S | 13 | 160.809917 | New York, NY |

▼ Menampilkan nilai body berdasarkan index ke 15

```
user_data.isnull().sum()

user_id      0
pclass       0
survived     0
name         0
sex          0
age          0
sibsp        0
parch        0
ticket       0
fare         0
cabin        0
embarked     0
boat         0
body         0
home.dest    564
dtype: int64
```

sehingga saat di cek maka missing value pada body sudah tidak ada dan tersisa 1 lagi, yaitu home.dest

▼ Missing Value Data Home.dest

```
user_data[user_data['home.dest'].isnull()]
```

| | user_id | pclass | survived | name | sex | age | sibsp | parch | ticket | fare | cabin | embarked | boat | body | home.dest |
|-----|---------|--------|----------|------------------------------|--------|-----------|-------|-------|----------|----------|-------------------|----------|------|------------|-----------|
| 13 | M0014 | 1 | 1 | Barber, Miss. Ellen "Nellie" | female | 26.000000 | 0 | 0 | 19877 | 78.8500 | C23 C25 C27 | S | 6 | 160.809917 | |
| 18 | M0019 | 1 | 1 | Bazzani, Miss. Albina | female | 32.000000 | 0 | 0 | 11813 | 76.2917 | D15 | C | 8 | 160.809917 | |
| 23 | M0024 | 1 | 1 | Bidois, Miss. Rosalie | female | 42.000000 | 0 | 0 | PC 17757 | 227.5250 | C23 C25 C27 | C | 4 | 160.809917 | |
| 24 | M0025 | 1 | 1 | Bird, Miss. Ellen | female | 29.000000 | 0 | 0 | PC 17483 | 221.7792 | C97 | S | 8 | 160.809917 | |
| 28 | M0029 | 1 | 1 | Bissette, Miss. Amelia | female | 35.000000 | 0 | 0 | PC 17760 | 135.6333 | C99 | S | 8 | 160.809917 | |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | | | | | | | | | | | --- | | | | |

▼ Mengecek missing values yang ada pada home.dest

```
user_data['home.dest'].value_counts()

New York, NY      64
London            14
Montreal, PQ      10
Paris, France      9
Cornwall / Akron, OH  9

..
Chelsea, London    1
Harrow-on-the-Hill, Middlesex  1
Copenhagen, Denmark  1
Guernsey / Montclair, NJ and/or Toledo, Ohio  1
Antwerp, Belgium / Stanton, OH  1
Name: home.dest, Length: 369, dtype: int64
```

▼ Menampilkan jumlah nilai home.dest

Saved successfully! X

```
mode_home = user_data['home.dest'].mode()[0]
mode_home

'New York, NY'
```

▼ Menampilkan home.dest yang indeks ke 0

```
user_data['home.dest'] = user_data['home.dest'].fillna(mode_home)

user_data.isnull().sum()

user_id      0
pclass      0
survived     0
name         0
sex          0
age          0
sibsp        0
parch        0
ticket       0
fare         0
cabin        0
embarked     0
boat         0
body         0
home.dest    0
dtype: int64
```

kemudian saat cek missing value, maka sudah tidak ada lagi yang missing value

✓ 0s completed at 7:16 PM

● ✕

Saved successfully! ✕