

AmanChauhan22BCE0476.R

Batch1

2024-09-26

```
#install.packages("psych")
#install.packages("moments")
#install.packages("ggplot2")
#install.packages("dplyr")
#install.packages("scatterplot3d")
library(psych)
library(ggplot2)
```

```
## Warning: package 'ggplot2' was built under R version 4.2.3
```

```
##
## Attaching package: 'ggplot2'
```

```
## The following objects are masked from 'package:psych':
##
##      %+%, alpha
```

```
library(moments)
library(dplyr)
```

```
## Warning: package 'dplyr' was built under R version 4.2.3
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##      filter, lag
```

```
## The following objects are masked from 'package:base':
##
##      intersect, setdiff, setequal, union
```

```
library(scatterplot3d)
```

```
## Warning: package 'scatterplot3d' was built under R version 4.2.3
```

```
install.packages("scatterplot3d")
```

```
## Warning: package 'scatterplot3d' is in use and will not be installed
```

```
#2D Analysis
```

```
#1. Load the in-build titanic dataset from R.
```

```
#data("Titanic")
```

```
#print(Titanic)
```

```
titanic_df<-read.csv("C:/Users/batch1/Documents/titanic.csv")
```

```
titanic_df
```

##	PassengerId	Survived	Pclass
## 1	1	0	3
## 2	2	1	1
## 3	3	1	3
## 4	4	1	1
## 5	5	0	3
## 6	6	0	3
## 7	7	0	1
## 8	8	0	3
## 9	9	1	3
## 10	10	1	2
## 11	11	1	3
## 12	12	1	1
## 13	13	0	3
## 14	14	0	3
## 15	15	0	3
## 16	16	1	2
## 17	17	0	3
## 18	18	1	2
## 19	19	0	3
## 20	20	1	3
## 21	21	0	2
## 22	22	1	2
## 23	23	1	3
## 24	24	1	1
## 25	25	0	3
## 26	26	1	3
## 27	27	0	3
## 28	28	0	1
## 29	29	1	3
## 30	30	0	3
## 31	31	0	1
## 32	32	1	1
## 33	33	1	3
## 34	34	0	2
## 35	35	0	1
## 36	36	0	1
## 37	37	1	3
## 38	38	0	3
## 39	39	0	3
## 40	40	1	3
## 41	41	0	3
## 42	42	0	2
## 43	43	0	3
## 44	44	1	2
## 45	45	1	3
## 46	46	0	3
## 47	47	0	3
## 48	48	1	3
## 49	49	0	3
## 50	50	0	3

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## 53	53	1	1
## 54	54	1	2
## 55	55	0	1
## 56	56	1	1
## 57	57	1	2
## 58	58	0	3
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## 67	67	1	2
## 68	68	0	3
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## 686	686	0	2
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## 709	709	1	1
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## 718	718	1	2
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## 727	727	1	2
## 728	728	1	3
## 729	729	0	2
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## 733	733	0	2
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## 735	735	0	2
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## 737	737	0	3
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## 739	739	0	3
## 740	740	0	3
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## 742	742	0	1
## 743	743	1	1
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## 745	745	1	3
## 746	746	0	1
## 747	747	0	3
## 748	748	1	2
## 749	749	0	1
## 750	750	0	3
## 751	751	1	2
## 752	752	1	3
## 753	753	0	3
## 754	754	0	3
## 755	755	1	2
## 756	756	1	2
## 757	757	0	3
## 758	758	0	2
## 759	759	0	3
## 760	760	1	1
## 761	761	0	3
## 762	762	0	3
## 763	763	1	3
## 764	764	1	1

## 765	765	0	3
## 766	766	1	1
## 767	767	0	1
## 768	768	0	3
## 769	769	0	3
## 770	770	0	3
## 771	771	0	3
## 772	772	0	3
## 773	773	0	2
## 774	774	0	3
## 775	775	1	2
## 776	776	0	3
## 777	777	0	3
## 778	778	1	3
## 779	779	0	3
## 780	780	1	1
## 781	781	1	3
## 782	782	1	1
## 783	783	0	1
## 784	784	0	3
## 785	785	0	3
## 786	786	0	3
## 787	787	1	3
## 788	788	0	3
## 789	789	1	3
## 790	790	0	1
## 791	791	0	3
## 792	792	0	2
## 793	793	0	3
## 794	794	0	1
## 795	795	0	3
## 796	796	0	2
## 797	797	1	1
## 798	798	1	3
## 799	799	0	3
## 800	800	0	3
## 801	801	0	2
## 802	802	1	2
## 803	803	1	1
## 804	804	1	3
## 805	805	1	3
## 806	806	0	3
## 807	807	0	1
## 808	808	0	3
## 809	809	0	2
## 810	810	1	1
## 811	811	0	3
## 812	812	0	3
## 813	813	0	2
## 814	814	0	3
## 815	815	0	3

## 816	816	0	1
## 817	817	0	3
## 818	818	0	2
## 819	819	0	3
## 820	820	0	3
## 821	821	1	1
## 822	822	1	3
## 823	823	0	1
## 824	824	1	3
## 825	825	0	3
## 826	826	0	3
## 827	827	0	3
## 828	828	1	2
## 829	829	1	3
## 830	830	1	1
## 831	831	1	3
## 832	832	1	2
## 833	833	0	3
## 834	834	0	3
## 835	835	0	3
## 836	836	1	1
## 837	837	0	3
## 838	838	0	3
## 839	839	1	3
## 840	840	1	1
## 841	841	0	3
## 842	842	0	2
## 843	843	1	1
## 844	844	0	3
## 845	845	0	3
## 846	846	0	3
## 847	847	0	3
## 848	848	0	3
## 849	849	0	2
## 850	850	1	1
## 851	851	0	3
## 852	852	0	3
## 853	853	0	3
## 854	854	1	1
## 855	855	0	2
## 856	856	1	3
## 857	857	1	1
## 858	858	1	1
## 859	859	1	3
## 860	860	0	3
## 861	861	0	3
## 862	862	0	2
## 863	863	1	1
## 864	864	0	3
## 865	865	0	2
## 866	866	1	2

## 867	867	1	2
## 868	868	0	1
## 869	869	0	3
## 870	870	1	3
## 871	871	0	3
## 872	872	1	1
## 873	873	0	1
## 874	874	0	3
## 875	875	1	2
## 876	876	1	3
## 877	877	0	3
## 878	878	0	3
## 879	879	0	3
## 880	880	1	1
## 881	881	1	2
## 882	882	0	3
## 883	883	0	3
## 884	884	0	2
## 885	885	0	3
## 886	886	0	3
## 887	887	0	2
## 888	888	1	1
## 889	889	0	3
## 890	890	1	1
## 891	891	0	3

##	Name
## 1	Braund, Mr. Owen Harris
## 2	Cumings, Mrs. John Bradley (Florence Briggs Thayer)
## 3	Heikkinen, Miss. Laina
## 4	Futrelle, Mrs. Jacques Heath (Lily May Peel)
## 5	Allen, Mr. William Henry
## 6	Moran, Mr. James
## 7	McCarthy, Mr. Timothy J
## 8	Palsson, Master. Gosta Leonard
## 9	Johnson, Mrs. Oscar W (Elisabeth Vilhelmina Berg)
## 10	Nasser, Mrs. Nicholas (Adele Achem)
## 11	Sandstrom, Miss. Marguerite Rut
## 12	Bonnell, Miss. Elizabeth
## 13	Saunderscock, Mr. William Henry
## 14	Andersson, Mr. Anders Johan
## 15	Vestrom, Miss. Hulda Amanda Adolfina
## 16	Hewlett, Mrs. (Mary D Kingcome)
## 17	Rice, Master. Eugene
## 18	Williams, Mr. Charles Eugene
## 19	Vander Planke, Mrs. Julius (Emelia Maria Vandemoortele)
## 20	Masselmani, Mrs. Fatima
## 21	Fynney, Mr. Joseph J
## 22	Beesley, Mr. Lawrence
## 23	McGowan, Miss. Anna "Annie"
## 24	Sloper, Mr. William Thompson
## 25	Palsson, Miss. Torborg Danira

## 26	Asplund, Mrs. Carl Oscar (Selma Augusta Emilia Johansson)
## 27	Emir, Mr. Farred Chehab
## 28	Fortune, Mr. Charles Alexander
## 29	O'Dwyer, Miss. Ellen "Nellie"
## 30	Todoroff, Mr. Lelio
## 31	Uruchurtu, Don. Manuel E
## 32	Spencer, Mrs. William Augustus (Marie Eugenie)
## 33	Glynn, Miss. Mary Agatha
## 34	Wheadon, Mr. Edward H
## 35	Meyer, Mr. Edgar Joseph
## 36	Holverson, Mr. Alexander Oskar
## 37	Mamee, Mr. Hanna
## 38	Cann, Mr. Ernest Charles
## 39	Vander Planke, Miss. Augusta Maria
## 40	Nicola-Yarred, Miss. Jamila
## 41	Ahlin, Mrs. Johan (Johanna Persdotter Larsson)
## 42	Turpin, Mrs. William John Robert (Dorothy Ann Wonnacott)
## 43	Kraeff, Mr. Theodor
## 44	Laroche, Miss. Simonne Marie Anne Andree
## 45	Devaney, Miss. Margaret Delia
## 46	Rogers, Mr. William John
## 47	Lennon, Mr. Denis
## 48	O'Driscoll, Miss. Bridget
## 49	Samaan, Mr. Youssef
## 50	Arnold-Franchi, Mrs. Josef (Josefine Franchi)
## 51	Panula, Master. Juha Niilo
## 52	Nosworthy, Mr. Richard Cater
## 53	Harper, Mrs. Henry Sleeper (Myna Haxtun)
## 54	Faunthorpe, Mrs. Lizzie (Elizabeth Anne Wilkinson)
## 55	Ostby, Mr. Engelhart Cornelius
## 56	Woolner, Mr. Hugh
## 57	Rugg, Miss. Emily
## 58	Novel, Mr. Mansouer
## 59	West, Miss. Constance Mirium
## 60	Goodwin, Master. William Frederick
## 61	Sirayanian, Mr. Orsen
## 62	Icard, Miss. Amelie
## 63	Harris, Mr. Henry Birkhardt
## 64	Skoog, Master. Harald
## 65	Stewart, Mr. Albert A
## 66	Moubarek, Master. Gerios
## 67	Nye, Mrs. (Elizabeth Ramell)
## 68	Crease, Mr. Ernest James
## 69	Andersson, Miss. Erna Alexandra
## 70	Kink, Mr. Vincenz
## 71	Jenkin, Mr. Stephen Curnow
## 72	Goodwin, Miss. Lillian Amy
## 73	Hood, Mr. Ambrose Jr
## 74	Chronopoulos, Mr. Apostolos
## 75	Bing, Mr. Lee
## 76	Moen, Mr. Sigurd Hansen

## 77	Staneff, Mr. Ivan
## 78	Moutal, Mr. Rahamin Haim
## 79	Caldwell, Master. Alden Gates
## 80	Dowdell, Miss. Elizabeth
## 81	Waelens, Mr. Achille
## 82	Sheerlinck, Mr. Jan Baptist
## 83	McDermott, Miss. Brigdet Delia
## 84	Carrau, Mr. Francisco M
## 85	Ilett, Miss. Bertha
## 86	Backstrom, Mrs. Karl Alfred (Maria Mathilda Gustafsson)
## 87	Ford, Mr. William Neal
## 88	Slocovski, Mr. Selman Francis
## 89	Fortune, Miss. Mabel Helen
## 90	Celotti, Mr. Francesco
## 91	Christmann, Mr. Emil
## 92	Andreasson, Mr. Paul Edvin
## 93	Chaffee, Mr. Herbert Fuller
## 94	Dean, Mr. Bertram Frank
## 95	Coxon, Mr. Daniel
## 96	Shorney, Mr. Charles Joseph
## 97	Goldschmidt, Mr. George B
## 98	Greenfield, Mr. William Bertram
## 99	Doling, Mrs. John T (Ada Julia Bone)
## 100	Kantor, Mr. Sinai
## 101	Petranec, Miss. Matilda
## 102	Petroff, Mr. Pastcho ("Pentcho")
## 103	White, Mr. Richard Frasar
## 104	Johansson, Mr. Gustaf Joel
## 105	Gustafsson, Mr. Anders Vilhelm
## 106	Mionoff, Mr. Stoytcho
## 107	Salkjelsvik, Miss. Anna Kristine
## 108	Moss, Mr. Albert Johan
## 109	Rekic, Mr. Tido
## 110	Moran, Miss. Bertha
## 111	Porter, Mr. Walter Chamberlain
## 112	Zabour, Miss. Hileni
## 113	Barton, Mr. David John
## 114	Jussila, Miss. Katriina
## 115	Attalah, Miss. Malake
## 116	Pekoniemi, Mr. Edvard
## 117	Connors, Mr. Patrick
## 118	Turpin, Mr. William John Robert
## 119	Baxter, Mr. Quigg Edmond
## 120	Andersson, Miss. Ellis Anna Maria
## 121	Hickman, Mr. Stanley George
## 122	Moore, Mr. Leonard Charles
## 123	Nasser, Mr. Nicholas
## 124	Webber, Miss. Susan
## 125	White, Mr. Percival Wayland
## 126	Nicola-Yarred, Master. Elias
## 127	McMahon, Mr. Martin

## 128	Madsen, Mr. Fridtjof Arne
## 129	Peter, Miss. Anna
## 130	Ekstrom, Mr. Johan
## 131	Drazenoic, Mr. Jozef
## 132	Coelho, Mr. Domingos Fernando
## 133	Robins, Mrs. Alexander A (Grace Charity Laury)
## 134	Weisz, Mrs. Leopold (Mathilde Francoise Pede)
## 135	Sobey, Mr. Samuel James Hayden
## 136	Richard, Mr. Emile
## 137	Newsom, Miss. Helen Monypeny
## 138	Futrelle, Mr. Jacques Heath
## 139	Osen, Mr. Olaf Elon
## 140	Giglio, Mr. Victor
## 141	Boulos, Mrs. Joseph (Sultana)
## 142	Nysten, Miss. Anna Sofia
## 143	Hakkarainen, Mrs. Pekka Pietari (Elin Matilda Dolck)
## 144	Burke, Mr. Jeremiah
## 145	Andrew, Mr. Edgardo Samuel
## 146	Nicholls, Mr. Joseph Charles
## 147	Andersson, Mr. August Edvard ("Wennerstrom")
## 148	Ford, Miss. Robina Maggie "Ruby"
## 149	Navratil, Mr. Michel ("Louis M Hoffman")
## 150	Byles, Rev. Thomas Roussel Davids
## 151	Bateman, Rev. Robert James
## 152	Pears, Mrs. Thomas (Edith Wearne)
## 153	Meo, Mr. Alfonzo
## 154	van Billiard, Mr. Austin Blyler
## 155	Olsen, Mr. Ole Martin
## 156	Williams, Mr. Charles Duane
## 157	Gilnagh, Miss. Katherine "Katie"
## 158	Corn, Mr. Harry
## 159	Smiljanic, Mr. Mile
## 160	Sage, Master. Thomas Henry
## 161	Cribb, Mr. John Hatfield
## 162	Watt, Mrs. James (Elizabeth "Bessie" Inglis Milne)
## 163	Bengtsson, Mr. John Viktor
## 164	Calic, Mr. Jovo
## 165	Panula, Master. Eino Viljami
## 166	Goldsmith, Master. Frank John William "Frankie"
## 167	Chibnall, Mrs. (Edith Martha Bowerman)
## 168	Skoog, Mrs. William (Anna Bernhardina Karlsson)
## 169	Baumann, Mr. John D
## 170	Ling, Mr. Lee
## 171	Van der hoef, Mr. Wyckoff
## 172	Rice, Master. Arthur
## 173	Johnson, Miss. Eleanor Ileen
## 174	Sivola, Mr. Antti Wilhelm
## 175	Smith, Mr. James Clinch
## 176	Klasen, Mr. Klas Albin
## 177	Lefebre, Master. Henry Forbes
## 178	Isham, Miss. Ann Elizabeth

## 179	Hale, Mr. Reginald
## 180	Leonard, Mr. Lionel
## 181	Sage, Miss. Constance Gladys
## 182	Pernot, Mr. Rene
## 183	Asplund, Master. Clarence Gustaf Hugo
## 184	Becker, Master. Richard F
## 185	Kink-Heilmann, Miss. Luise Gretchen
## 186	Rood, Mr. Hugh Roscoe
## 187	O'Brien, Mrs. Thomas (Johanna "Hannah" Godfrey)
## 188	Romaine, Mr. Charles Hallace ("Mr C Rolmane")
## 189	Bourke, Mr. John
## 190	Turcin, Mr. Stjepan
## 191	Pinsky, Mrs. (Rosa)
## 192	Carbines, Mr. William
## 193	Andersen-Jensen, Miss. Carla Christine Nielsine
## 194	Navratil, Master. Michel M
## 195	Brown, Mrs. James Joseph (Margaret Tobin)
## 196	Lurette, Miss. Elise
## 197	Mernagh, Mr. Robert
## 198	Olsen, Mr. Karl Siegwart Andreas
## 199	Madigan, Miss. Margaret "Maggie"
## 200	Yrois, Miss. Henriette ("Mrs Harbeck")
## 201	Vande Walle, Mr. Nestor Cyriel
## 202	Sage, Mr. Frederick
## 203	Johanson, Mr. Jakob Alfred
## 204	Youseff, Mr. Gerious
## 205	Cohen, Mr. Gurshon "Gus"
## 206	Strom, Miss. Telma Matilda
## 207	Backstrom, Mr. Karl Alfred
## 208	Albimona, Mr. Nassef Cassem
## 209	Carr, Miss. Helen "Ellen"
## 210	Blank, Mr. Henry
## 211	Ali, Mr. Ahmed
## 212	Cameron, Miss. Clear Annie
## 213	Perkin, Mr. John Henry
## 214	Givard, Mr. Hans Kristensen
## 215	Kiernan, Mr. Philip
## 216	Newell, Miss. Madeleine
## 217	Honkanen, Miss. Eliina
## 218	Jacobsohn, Mr. Sidney Samuel
## 219	Bazzani, Miss. Albina
## 220	Harris, Mr. Walter
## 221	Sunderland, Mr. Victor Francis
## 222	Bracken, Mr. James H
## 223	Green, Mr. George Henry
## 224	Nenkoff, Mr. Christo
## 225	Hoyt, Mr. Frederick Maxfield
## 226	Berglund, Mr. Karl Ivar Sven
## 227	Mellors, Mr. William John
## 228	Lovell, Mr. John Hall ("Henry")
## 229	Fahlstrom, Mr. Arne Jonas

## 230	Lefebvre, Miss. Mathilde
## 231	Harris, Mrs. Henry Birkhardt (Irene Wallach)
## 232	Larsson, Mr. Bengt Edvin
## 233	Sjostedt, Mr. Ernst Adolf
## 234	Asplund, Miss. Lillian Gertrud
## 235	Leyson, Mr. Robert William Norman
## 236	Harknett, Miss. Alice Phoebe
## 237	Hold, Mr. Stephen
## 238	Collyer, Miss. Marjorie "Lottie"
## 239	Pengelly, Mr. Frederick William
## 240	Hunt, Mr. George Henry
## 241	Zabour, Miss. Thamine
## 242	Murphy, Miss. Katherine "Kate"
## 243	Coleridge, Mr. Reginald Charles
## 244	Maenpaa, Mr. Matti Alexanteri
## 245	Attalah, Mr. Sleiman
## 246	Minahan, Dr. William Edward
## 247	Lindahl, Miss. Agda Thorilda Viktoria
## 248	Hamalainen, Mrs. William (Anna)
## 249	Beckwith, Mr. Richard Leonard
## 250	Carter, Rev. Ernest Courtenay
## 251	Reed, Mr. James George
## 252	Strom, Mrs. Wilhelm (Elna Matilda Persson)
## 253	Stead, Mr. William Thomas
## 254	Lobb, Mr. William Arthur
## 255	Rosblom, Mrs. Viktor (Helena Wilhelmina)
## 256	Touma, Mrs. Darwis (Hanne Youssef Razi)
## 257	Thorne, Mrs. Gertrude Maybelle
## 258	Cherry, Miss. Gladys
## 259	Ward, Miss. Anna
## 260	Parrish, Mrs. (Lutie Davis)
## 261	Smith, Mr. Thomas
## 262	Asplund, Master. Edvin Rojj Felix
## 263	Taussig, Mr. Emil
## 264	Harrison, Mr. William
## 265	Henry, Miss. Delia
## 266	Reeves, Mr. David
## 267	Panula, Mr. Ernesti Arvid
## 268	Persson, Mr. Ernst Ulrik
## 269	Graham, Mrs. William Thompson (Edith Junkins)
## 270	Bissette, Miss. Amelia
## 271	Cairns, Mr. Alexander
## 272	Tornquist, Mr. William Henry
## 273	Mellinger, Mrs. (Elizabeth Anne Maidment)
## 274	Natsch, Mr. Charles H
## 275	Healy, Miss. Hanora "Nora"
## 276	Andrews, Miss. Kornelia Theodosia
## 277	Lindblom, Miss. Augusta Charlotta
## 278	Parkes, Mr. Francis "Frank"
## 279	Rice, Master. Eric
## 280	Abbott, Mrs. Stanton (Rosa Hunt)

## 281	Duane, Mr. Frank
## 282	Olsson, Mr. Nils Johan Goransson
## 283	de Pelsmaeker, Mr. Alfons
## 284	Dorking, Mr. Edward Arthur
## 285	Smith, Mr. Richard William
## 286	Stankovic, Mr. Ivan
## 287	de Mulder, Mr. Theodore
## 288	Naidenoff, Mr. Penko
## 289	Hosono, Mr. Masabumi
## 290	Connolly, Miss. Kate
## 291	Barber, Miss. Ellen "Nellie"
## 292	Bishop, Mrs. Dickinson H (Helen Walton)
## 293	Levy, Mr. Rene Jacques
## 294	Haas, Miss. Aloisia
## 295	Mineff, Mr. Ivan
## 296	Lewy, Mr. Ervin G
## 297	Hanna, Mr. Mansour
## 298	Allison, Miss. Helen Loraine
## 299	Saalfeld, Mr. Adolphe
## 300	Baxter, Mrs. James (Helene DeLaudeniére Chaput)
## 301	Kelly, Miss. Anna Katherine "Annie Kate"
## 302	McCoy, Mr. Bernard
## 303	Johnson, Mr. William Cahoon Jr
## 304	Keane, Miss. Nora A
## 305	Williams, Mr. Howard Hugh "Harry"
## 306	Allison, Master. Hudson Trevor
## 307	Fleming, Miss. Margaret
## 308	Penasco y Castellana, Mrs. Victor de Satode (Maria Josefa Perez de Soto y Vallejo)
## 309	Abelson, Mr. Samuel
## 310	Francatelli, Miss. Laura Mabel
## 311	Hays, Miss. Margaret Bechstein
## 312	Ryerson, Miss. Emily Borie
## 313	Lahtinen, Mrs. William (Anna Sylfven)
## 314	Hendekovic, Mr. Ignjac
## 315	Hart, Mr. Benjamin
## 316	Nilsson, Miss. Helmina Josefina
## 317	Kantor, Mrs. Sinai (Miriam Sternin)
## 318	Moraweck, Dr. Ernest
## 319	Wick, Miss. Mary Natalie
## 320	Spedden, Mrs. Frederic Oakley (Margaretta Corning Stone)
## 321	Dennis, Mr. Samuel
## 322	Danoff, Mr. Yoto
## 323	Slayter, Miss. Hilda Mary
## 324	Caldwell, Mrs. Albert Francis (Sylvia Mae Harbaugh)
## 325	Sage, Mr. George John Jr
## 326	Young, Miss. Marie Grice
## 327	Nysveen, Mr. Johan Hansen
## 328	Ball, Mrs. (Ada E Hall)
## 329	Goldsmith, Mrs. Frank John (Emily Alice Brown)
## 330	Hippach, Miss. Jean Gertrude
## 331	McCoy, Miss. Agnes

## 332	Partner, Mr. Austen
## 333	Graham, Mr. George Edward
## 334	Vander Planke, Mr. Leo Edmondus
## 335	Frauenthal, Mrs. Henry William (Clara Heinsheimer)
## 336	Denkoff, Mr. Mitto
## 337	Pears, Mr. Thomas Clinton
## 338	Burns, Miss. Elizabeth Margaret
## 339	Dahl, Mr. Karl Edwart
## 340	Blackwell, Mr. Stephen Weart
## 341	Navratil, Master. Edmond Roger
## 342	Fortune, Miss. Alice Elizabeth
## 343	Collander, Mr. Erik Gustaf
## 344	Sedgwick, Mr. Charles Frederick Waddington
## 345	Fox, Mr. Stanley Hubert
## 346	Brown, Miss. Amelia "Mildred"
## 347	Smith, Miss. Marion Elsie
## 348	Davison, Mrs. Thomas Henry (Mary E Finck)
## 349	Coutts, Master. William Loch "William"
## 350	Dimic, Mr. Jovan
## 351	Odahl, Mr. Nils Martin
## 352	Williams-Lambert, Mr. Fletcher Fellows
## 353	Elias, Mr. Tannous
## 354	Arnold-Franchi, Mr. Josef
## 355	Yousif, Mr. Wazli
## 356	Vanden Steen, Mr. Leo Peter
## 357	Bowerman, Miss. Elsie Edith
## 358	Funk, Miss. Annie Clemmer
## 359	McGovern, Miss. Mary
## 360	Mockler, Miss. Helen Mary "Ellie"
## 361	Skoog, Mr. Wilhelm
## 362	del Carlo, Mr. Sebastiano
## 363	Barbara, Mrs. (Catherine David)
## 364	Asim, Mr. Adola
## 365	O'Brien, Mr. Thomas
## 366	Adahl, Mr. Mauritz Nils Martin
## 367	Warren, Mrs. Frank Manley (Anna Sophia Atkinson)
## 368	Moussa, Mrs. (Mantoura Boulos)
## 369	Jermyn, Miss. Annie
## 370	Aubart, Mme. Leontine Pauline
## 371	Harder, Mr. George Achilles
## 372	Wiklund, Mr. Jakob Alfred
## 373	Beavan, Mr. William Thomas
## 374	Ringhini, Mr. Sante
## 375	Palsson, Miss. Stina Viola
## 376	Meyer, Mrs. Edgar Joseph (Leila Saks)
## 377	Landergren, Miss. Aurora Adelia
## 378	Widener, Mr. Harry Elkins
## 379	Betros, Mr. Tannous
## 380	Gustafsson, Mr. Karl Gideon
## 381	Bidois, Miss. Rosalie
## 382	Nakid, Miss. Maria ("Mary")

## 383	Tikkanen, Mr. Juho
## 384	Holverson, Mrs. Alexander Oskar (Mary Aline Towner)
## 385	Plotcharsky, Mr. Vasil
## 386	Davies, Mr. Charles Henry
## 387	Goodwin, Master. Sidney Leonard
## 388	Buss, Miss. Kate
## 389	Sadlier, Mr. Matthew
## 390	Lehmann, Miss. Bertha
## 391	Carter, Mr. William Ernest
## 392	Jansson, Mr. Carl Olof
## 393	Gustafsson, Mr. Johan Birger
## 394	Newell, Miss. Marjorie
## 395	Sandstrom, Mrs. Hjalmar (Agnes Charlotta Bengtsson)
## 396	Johansson, Mr. Erik
## 397	Olsson, Miss. Elina
## 398	McKane, Mr. Peter David
## 399	Pain, Dr. Alfred
## 400	Trout, Mrs. William H (Jessie L)
## 401	Niskanen, Mr. Juha
## 402	Adams, Mr. John
## 403	Jussila, Miss. Mari Aina
## 404	Hakkarainen, Mr. Pekka Pietari
## 405	Oreskovic, Miss. Marija
## 406	Gale, Mr. Shadrach
## 407	Widegren, Mr. Carl/Charles Peter
## 408	Richards, Master. William Rowe
## 409	Birkeland, Mr. Hans Martin Monsen
## 410	Lefebvre, Miss. Ida
## 411	Sdycoff, Mr. Todor
## 412	Hart, Mr. Henry
## 413	Minahan, Miss. Daisy E
## 414	Cunningham, Mr. Alfred Fleming
## 415	Sundman, Mr. Johan Julian
## 416	Meek, Mrs. Thomas (Annie Louise Rowley)
## 417	Drew, Mrs. James Vivian (Lulu Thorne Christian)
## 418	Silven, Miss. Lylyli Karoliina
## 419	Matthews, Mr. William John
## 420	Van Impe, Miss. Catharina
## 421	Gheorgheff, Mr. Stanio
## 422	Charters, Mr. David
## 423	Zimmerman, Mr. Leo
## 424	Danbom, Mrs. Ernst Gilbert (Anna Sigrid Maria Brogren)
## 425	Rosblom, Mr. Viktor Richard
## 426	Wiseman, Mr. Phillippe
## 427	Clarke, Mrs. Charles V (Ada Maria Winfield)
## 428	Phillips, Miss. Kate Florence ("Mrs Kate Louise Phillips Marshall")
## 429	Flynn, Mr. James
## 430	Pickard, Mr. Berk (Berk Trembisky)
## 431	Bjornstrom-Steffansson, Mr. Mauritz Hakan
## 432	Thorneycroft, Mrs. Percival (Florence Kate White)
## 433	Louch, Mrs. Charles Alexander (Alice Adelaide Slow)

## 434	Kallio, Mr. Nikolai Erland
## 435	Silvey, Mr. William Baird
## 436	Carter, Miss. Lucile Polk
## 437	Ford, Miss. Doolina Margaret "Daisy"
## 438	Richards, Mrs. Sidney (Emily Hocking)
## 439	Fortune, Mr. Mark
## 440	Kvillner, Mr. Johan Henrik Johannesson
## 441	Hart, Mrs. Benjamin (Esther Ada Bloomfield)
## 442	Hampe, Mr. Leon
## 443	Petterson, Mr. Johan Emil
## 444	Reynaldo, Ms. Encarnacion
## 445	Johannesen-Bratthammer, Mr. Bernt
## 446	Dodge, Master. Washington
## 447	Mellinger, Miss. Madeleine Violet
## 448	Seward, Mr. Frederic Kimber
## 449	Baclini, Miss. Marie Catherine
## 450	Peuchen, Major. Arthur Godfrey
## 451	West, Mr. Edwy Arthur
## 452	Hagland, Mr. Ingvald Olai Olsen
## 453	Foreman, Mr. Benjamin Laventall
## 454	Goldenberg, Mr. Samuel L
## 455	Peduzzi, Mr. Joseph
## 456	Jalsevac, Mr. Ivan
## 457	Millet, Mr. Francis Davis
## 458	Kenyon, Mrs. Frederick R (Marion)
## 459	Toomey, Miss. Ellen
## 460	O'Connor, Mr. Maurice
## 461	Anderson, Mr. Harry
## 462	Morley, Mr. William
## 463	Gee, Mr. Arthur H
## 464	Milling, Mr. Jacob Christian
## 465	Maisner, Mr. Simon
## 466	Goncalves, Mr. Manuel Estanslas
## 467	Campbell, Mr. William
## 468	Smart, Mr. John Montgomery
## 469	Scanlan, Mr. James
## 470	Baclini, Miss. Helene Barbara
## 471	Keefe, Mr. Arthur
## 472	Cacic, Mr. Luka
## 473	West, Mrs. Edwy Arthur (Ada Mary Worth)
## 474	Jerwan, Mrs. Amin S (Marie Marthe Thuillard)
## 475	Strandberg, Miss. Ida Sofia
## 476	Clifford, Mr. George Quincy
## 477	Renouf, Mr. Peter Henry
## 478	Braund, Mr. Lewis Richard
## 479	Karlsson, Mr. Nils August
## 480	Hirvonen, Miss. Hildur E
## 481	Goodwin, Master. Harold Victor
## 482	Frost, Mr. Anthony Wood "Archie"
## 483	Rouse, Mr. Richard Henry
## 484	Turkula, Mrs. (Hedwig)

## 485	Bishop, Mr. Dickinson H
## 486	Lefebre, Miss. Jeannie
## 487	Hoyt, Mrs. Frederick Maxfield (Jane Anne Forby)
## 488	Kent, Mr. Edward Austin
## 489	Somerton, Mr. Francis William
## 490	Coutts, Master. Eden Leslie "Neville"
## 491	Hagland, Mr. Konrad Mathias Reiersen
## 492	Windelov, Mr. Einar
## 493	Molson, Mr. Harry Markland
## 494	Artagaveytia, Mr. Ramon
## 495	Stanley, Mr. Edward Roland
## 496	Yousseff, Mr. Gerious
## 497	Eustis, Miss. Elizabeth Mussey
## 498	Shellard, Mr. Frederick William
## 499	Allison, Mrs. Hudson J C (Bessie Waldo Daniels)
## 500	Svensson, Mr. Olof
## 501	Calic, Mr. Petar
## 502	Canavan, Miss. Mary
## 503	O'Sullivan, Miss. Bridget Mary
## 504	Laitinen, Miss. Kristina Sofia
## 505	Maioni, Miss. Roberta
## 506	Penasco y Castellana, Mr. Victor de Satode
## 507	Quick, Mrs. Frederick Charles (Jane Richards)
## 508	Bradley, Mr. George ("George Arthur Brayton")
## 509	Olsen, Mr. Henry Margido
## 510	Lang, Mr. Fang
## 511	Daly, Mr. Eugene Patrick
## 512	Webber, Mr. James
## 513	McGough, Mr. James Robert
## 514	Rothschild, Mrs. Martin (Elizabeth L. Barrett)
## 515	Coleff, Mr. Satio
## 516	Walker, Mr. William Anderson
## 517	Lemore, Mrs. (Amelia Milley)
## 518	Ryan, Mr. Patrick
## 519	Angle, Mrs. William A (Florence "Mary" Agnes Hughes)
## 520	Pavlovic, Mr. Stefo
## 521	Perreault, Miss. Anne
## 522	Vovk, Mr. Janko
## 523	Lahoud, Mr. Sarkis
## 524	Hippach, Mrs. Louis Albert (Ida Sophia Fischer)
## 525	Kassem, Mr. Fared
## 526	Farrell, Mr. James
## 527	Ridsdale, Miss. Lucy
## 528	Farthing, Mr. John
## 529	Salonen, Mr. Johan Werner
## 530	Hocking, Mr. Richard George
## 531	Quick, Miss. Phyllis May
## 532	Toufik, Mr. Nakli
## 533	Elias, Mr. Joseph Jr
## 534	Peter, Mrs. Catherine (Catherine Rizk)
## 535	Cacic, Miss. Marija

## 536	Hart, Miss. Eva Miriam
## 537	Butt, Major. Archibald Willingham
## 538	LeRoy, Miss. Bertha
## 539	Risien, Mr. Samuel Beard
## 540	Frolicher, Miss. Hedwig Margaritha
## 541	Crosby, Miss. Harriet R
## 542	Andersson, Miss. Ingeborg Constanzia
## 543	Andersson, Miss. Sigrid Elisabeth
## 544	Beane, Mr. Edward
## 545	Douglas, Mr. Walter Donald
## 546	Nicholson, Mr. Arthur Ernest
## 547	Beane, Mrs. Edward (Ethel Clarke)
## 548	Padro y Manent, Mr. Julian
## 549	Goldsmith, Mr. Frank John
## 550	Davies, Master. John Morgan Jr
## 551	Thayer, Mr. John Borland Jr
## 552	Sharp, Mr. Percival James R
## 553	O'Brien, Mr. Timothy
## 554	Leeni, Mr. Fahim ("Philip Zenni")
## 555	Ohman, Miss. Velin
## 556	Wright, Mr. George
## 557	Duff Gordon, Lady. (Lucille Christiana Sutherland) ("Mrs Morgan")
## 558	Robbins, Mr. Victor
## 559	Taussig, Mrs. Emil (Tillie Mandelbaum)
## 560	de Messemaeker, Mrs. Guillaume Joseph (Emma)
## 561	Morrow, Mr. Thomas Rowan
## 562	Sivic, Mr. Husein
## 563	Norman, Mr. Robert Douglas
## 564	Simmons, Mr. John
## 565	Meanwell, Miss. (Marion Ogden)
## 566	Davies, Mr. Alfred J
## 567	Stoytcheff, Mr. Ilia
## 568	Palsson, Mrs. Nils (Alma Cornelia Berglund)
## 569	Doharr, Mr. Tannous
## 570	Jonsson, Mr. Carl
## 571	Harris, Mr. George
## 572	Appleton, Mrs. Edward Dale (Charlotte Lamson)
## 573	Flynn, Mr. John Irwin ("Irving")
## 574	Kelly, Miss. Mary
## 575	Rush, Mr. Alfred George John
## 576	Patchett, Mr. George
## 577	Garside, Miss. Ethel
## 578	Silvey, Mrs. William Baird (Alice Munger)
## 579	Caram, Mrs. Joseph (Maria Elias)
## 580	Jussila, Mr. Eiriik
## 581	Christy, Miss. Julie Rachel
## 582	Thayer, Mrs. John Borland (Marian Longstreth Morris)
## 583	Downton, Mr. William James
## 584	Ross, Mr. John Hugo
## 585	Paulner, Mr. Uscher
## 586	Taussig, Miss. Ruth

## 587	Jarvis, Mr. John Denzil
## 588	Frolicher-Stehli, Mr. Maxmillian
## 589	Gilinski, Mr. Eliezer
## 590	Murdlin, Mr. Joseph
## 591	Rintamaki, Mr. Matti
## 592	Stephenson, Mrs. Walter Bertram (Martha Eustis)
## 593	Elsbury, Mr. William James
## 594	Bourke, Miss. Mary
## 595	Chapman, Mr. John Henry
## 596	Van Impe, Mr. Jean Baptiste
## 597	Leitch, Miss. Jessie Wills
## 598	Johnson, Mr. Alfred
## 599	Boulos, Mr. Hanna
## 600	Duff Gordon, Sir. Cosmo Edmund ("Mr Morgan")
## 601	Jacobsohn, Mrs. Sidney Samuel (Amy Frances Christy)
## 602	Slabenoff, Mr. Petco
## 603	Harrington, Mr. Charles H
## 604	Torber, Mr. Ernst William
## 605	Homer, Mr. Harry ("Mr E Haven")
## 606	Lindell, Mr. Edvard Bengtsson
## 607	Karaic, Mr. Milan
## 608	Daniel, Mr. Robert Williams
## 609	Laroche, Mrs. Joseph (Juliette Marie Louise Lafargue)
## 610	Shutes, Miss. Elizabeth W
## 611	Andersson, Mrs. Anders Johan (Alfrida Konstantia Brogren)
## 612	Jardin, Mr. Jose Neto
## 613	Murphy, Miss. Margaret Jane
## 614	Horgan, Mr. John
## 615	Brocklebank, Mr. William Alfred
## 616	Herman, Miss. Alice
## 617	Danbom, Mr. Ernst Gilbert
## 618	Lobb, Mrs. William Arthur (Cordelia K Stanlick)
## 619	Becker, Miss. Marion Louise
## 620	Gavey, Mr. Lawrence
## 621	Yasbeck, Mr. Antoni
## 622	Kimball, Mr. Edwin Nelson Jr
## 623	Nakid, Mr. Sahid
## 624	Hansen, Mr. Henry Damsgaard
## 625	Bowen, Mr. David John "Dai"
## 626	Sutton, Mr. Frederick
## 627	Kirkland, Rev. Charles Leonard
## 628	Longley, Miss. Gretchen Fiske
## 629	Bostandyeff, Mr. Guentcho
## 630	O'Connell, Mr. Patrick D
## 631	Barkworth, Mr. Algernon Henry Wilson
## 632	Lundahl, Mr. Johan Svensson
## 633	Stahelin-Maeglin, Dr. Max
## 634	Parr, Mr. William Henry Marsh
## 635	Skoog, Miss. Mabel
## 636	Davis, Miss. Mary
## 637	Leinonen, Mr. Antti Gustaf

## 638	Collyer, Mr. Harvey
## 639	Panula, Mrs. Juha (Maria Emilia Ojala)
## 640	Thorneycroft, Mr. Percival
## 641	Jensen, Mr. Hans Peder
## 642	Sagesser, Mlle. Emma
## 643	Skoog, Miss. Margit Elizabeth
## 644	Foo, Mr. Choong
## 645	Baclini, Miss. Eugenie
## 646	Harper, Mr. Henry Sleeper
## 647	Cor, Mr. Liudevit
## 648	Simonius-Blumer, Col. Oberst Alfons
## 649	Willey, Mr. Edward
## 650	Stanley, Miss. Amy Zillah Elsie
## 651	Mitkoff, Mr. Mito
## 652	Doling, Miss. Elsie
## 653	Kalvik, Mr. Johannes Halvorsen
## 654	O'Leary, Miss. Hanora "Norah"
## 655	Hegarty, Miss. Hanora "Nora"
## 656	Hickman, Mr. Leonard Mark
## 657	Radeff, Mr. Alexander
## 658	Bourke, Mrs. John (Catherine)
## 659	Eitemiller, Mr. George Floyd
## 660	Newell, Mr. Arthur Webster
## 661	Frauenthal, Dr. Henry William
## 662	Badt, Mr. Mohamed
## 663	Colley, Mr. Edward Pomeroy
## 664	Coleff, Mr. Peju
## 665	Lindqvist, Mr. Eino William
## 666	Hickman, Mr. Lewis
## 667	Butler, Mr. Reginald Fenton
## 668	Rommetvedt, Mr. Knud Paust
## 669	Cook, Mr. Jacob
## 670	Taylor, Mrs. Elmer Zebley (Juliet Cummins Wright)
## 671	Brown, Mrs. Thomas William Solomon (Elizabeth Catherine Ford)
## 672	Davidson, Mr. Thornton
## 673	Mitchell, Mr. Henry Michael
## 674	Wilhelms, Mr. Charles
## 675	Watson, Mr. Ennis Hastings
## 676	Edvardsson, Mr. Gustaf Hjalmar
## 677	Sawyer, Mr. Frederick Charles
## 678	Turja, Miss. Anna Sofia
## 679	Goodwin, Mrs. Frederick (Augusta Tyler)
## 680	Cardeza, Mr. Thomas Drake Martinez
## 681	Peters, Miss. Katie
## 682	Hassab, Mr. Hammad
## 683	Olsvigen, Mr. Thor Anderson
## 684	Goodwin, Mr. Charles Edward
## 685	Brown, Mr. Thomas William Solomon
## 686	Laroche, Mr. Joseph Philippe Lemercier
## 687	Panula, Mr. Jaako Arnold
## 688	Dakic, Mr. Branko

## 689	Fischer, Mr. Eberhard Thelander
## 690	Madill, Miss. Georgette Alexandra
## 691	Dick, Mr. Albert Adrian
## 692	Karun, Miss. Manca
## 693	Lam, Mr. Ali
## 694	Saad, Mr. Khalil
## 695	Weir, Col. John
## 696	Chapman, Mr. Charles Henry
## 697	Kelly, Mr. James
## 698	Mullens, Miss. Katherine "Katie"
## 699	Thayer, Mr. John Borland
## 700	Humblen, Mr. Adolf Mathias Nicolai Olsen
## 701	Astor, Mrs. John Jacob (Madeleine Talmadge Force)
## 702	Silverthorne, Mr. Spencer Victor
## 703	Barbara, Miss. Saiide
## 704	Gallagher, Mr. Martin
## 705	Hansen, Mr. Henrik Juul
## 706	Morley, Mr. Henry Samuel ("Mr Henry Marshall")
## 707	Kelly, Mrs. Florence "Fannie"
## 708	Calderhead, Mr. Edward Pennington
## 709	Cleaver, Miss. Alice
## 710	Moubarek, Master. Halim Gonios ("William George")
## 711	Mayne, Mlle. Berthe Antonine ("Mrs de Villiers")
## 712	Klaber, Mr. Herman
## 713	Taylor, Mr. Elmer Zebley
## 714	Larsson, Mr. August Viktor
## 715	Greenberg, Mr. Samuel
## 716	Soholt, Mr. Peter Andreas Lauritz Andersen
## 717	Endres, Miss. Caroline Louise
## 718	Troutt, Miss. Edwina Celia "Winnie"
## 719	McEvoy, Mr. Michael
## 720	Johnson, Mr. Malkolm Joackim
## 721	Harper, Miss. Annie Jessie "Nina"
## 722	Jensen, Mr. Svend Lauritz
## 723	Gillespie, Mr. William Henry
## 724	Hodges, Mr. Henry Price
## 725	Chambers, Mr. Norman Campbell
## 726	Oreskovic, Mr. Luka
## 727	Renouf, Mrs. Peter Henry (Lillian Jefferys)
## 728	Mannion, Miss. Margareth
## 729	Bryhl, Mr. Kurt Arnold Gottfrid
## 730	Ilmakangas, Miss. Pieta Sofia
## 731	Allen, Miss. Elisabeth Walton
## 732	Hassan, Mr. Houssein G N
## 733	Knight, Mr. Robert J
## 734	Berriman, Mr. William John
## 735	Troupiansky, Mr. Moses Aaron
## 736	Williams, Mr. Leslie
## 737	Ford, Mrs. Edward (Margaret Ann Watson)
## 738	Lesurer, Mr. Gustave J
## 739	Ivanoff, Mr. Kanio

## 740	Nankoff, Mr. Minko
## 741	Hawksford, Mr. Walter James
## 742	Cavendish, Mr. Tyrell William
## 743	Ryerson, Miss. Susan Parker "Suzette"
## 744	McNamee, Mr. Neal
## 745	Stranden, Mr. Juho
## 746	Crosby, Capt. Edward Gifford
## 747	Abbott, Mr. Rossmore Edward
## 748	Sinkkonen, Miss. Anna
## 749	Marvin, Mr. Daniel Warner
## 750	Connaghton, Mr. Michael
## 751	Wells, Miss. Joan
## 752	Moor, Master. Meier
## 753	Vande Velde, Mr. Johannes Joseph
## 754	Jonkoff, Mr. Lelio
## 755	Herman, Mrs. Samuel (Jane Laver)
## 756	Hamalainen, Master. Viljo
## 757	Carlsson, Mr. August Sigfrid
## 758	Bailey, Mr. Percy Andrew
## 759	Theobald, Mr. Thomas Leonard
## 760	Roths, the Countess. of (Lucy Noel Martha Dyer-Edwards)
## 761	Garfirth, Mr. John
## 762	Nirva, Mr. Iisakki Antino Aijo
## 763	Barah, Mr. Hanna Assi
## 764	Carter, Mrs. William Ernest (Lucile Polk)
## 765	Eklund, Mr. Hans Linus
## 766	Hogeboom, Mrs. John C (Anna Andrews)
## 767	Brewe, Dr. Arthur Jackson
## 768	Mangan, Miss. Mary
## 769	Moran, Mr. Daniel J
## 770	Gronnestad, Mr. Daniel Danielsen
## 771	Lievens, Mr. Rene Aime
## 772	Jensen, Mr. Niels Peder
## 773	Mack, Mrs. (Mary)
## 774	Elias, Mr. Dibo
## 775	Hocking, Mrs. Elizabeth (Eliza Needs)
## 776	Myhrman, Mr. Pehr Fabian Oliver Malkolm
## 777	Tobin, Mr. Roger
## 778	Emanuel, Miss. Virginia Ethel
## 779	Kilgannon, Mr. Thomas J
## 780	Robert, Mrs. Edward Scott (Elisabeth Walton McMillan)
## 781	Ayoub, Miss. Banoura
## 782	Dick, Mrs. Albert Adrian (Vera Gillespie)
## 783	Long, Mr. Milton Clyde
## 784	Johnston, Mr. Andrew G
## 785	Ali, Mr. William
## 786	Harmer, Mr. Abraham (David Lishin)
## 787	Sjoblom, Miss. Anna Sofia
## 788	Rice, Master. George Hugh
## 789	Dean, Master. Bertram Vere
## 790	Guggenheim, Mr. Benjamin

## 791	Keane, Mr. Andrew "Andy"
## 792	Gaskell, Mr. Alfred
## 793	Sage, Miss. Stella Anna
## 794	Hoyt, Mr. William Fisher
## 795	Dantcheff, Mr. Ristiu
## 796	Otter, Mr. Richard
## 797	Leader, Dr. Alice (Farnham)
## 798	Osman, Mrs. Mara
## 799	Ibrahim Shawah, Mr. Yousseff
## 800	Van Impe, Mrs. Jean Baptiste (Rosalie Paula Govaert)
## 801	Ponesell, Mr. Martin
## 802	Collyer, Mrs. Harvey (Charlotte Annie Tate)
## 803	Carter, Master. William Thornton II
## 804	Thomas, Master. Assad Alexander
## 805	Hedman, Mr. Oskar Arvid
## 806	Johansson, Mr. Karl Johan
## 807	Andrews, Mr. Thomas Jr
## 808	Pettersson, Miss. Ellen Natalia
## 809	Meyer, Mr. August
## 810	Chambers, Mrs. Norman Campbell (Bertha Griggs)
## 811	Alexander, Mr. William
## 812	Lester, Mr. James
## 813	Slemen, Mr. Richard James
## 814	Andersson, Miss. Ebba Iris Alfrida
## 815	Tomlin, Mr. Ernest Portage
## 816	Fry, Mr. Richard
## 817	Heininen, Miss. Wendla Maria
## 818	Mallet, Mr. Albert
## 819	Holm, Mr. John Fredrik Alexander
## 820	Skoog, Master. Karl Thorsten
## 821	Hays, Mrs. Charles Melville (Clara Jennings Gregg)
## 822	Lulic, Mr. Nikola
## 823	Reuchlin, Jonkheer. John George
## 824	Moor, Mrs. (Beila)
## 825	Panula, Master. Urho Abraham
## 826	Flynn, Mr. John
## 827	Lam, Mr. Len
## 828	Mallet, Master. Andre
## 829	McCormack, Mr. Thomas Joseph
## 830	Stone, Mrs. George Nelson (Martha Evelyn)
## 831	Yasbeck, Mrs. Antoni (Selini Alexander)
## 832	Richards, Master. George Sibley
## 833	Saad, Mr. Amin
## 834	Augustsson, Mr. Albert
## 835	Allum, Mr. Owen George
## 836	Compton, Miss. Sara Rebecca
## 837	Pasic, Mr. Jakob
## 838	Sirota, Mr. Maurice
## 839	Chip, Mr. Chang
## 840	Marechal, Mr. Pierre
## 841	Alhomaki, Mr. Ilmari Rudolf

## 842	Mudd, Mr. Thomas Charles
## 843	Serepeca, Miss. Augusta
## 844	Lemberopolous, Mr. Peter L
## 845	Culumovic, Mr. Jeso
## 846	Abbing, Mr. Anthony
## 847	Sage, Mr. Douglas Bullen
## 848	Markoff, Mr. Marin
## 849	Harper, Rev. John
## 850	Goldenberg, Mrs. Samuel L (Edwiga Grabowska)
## 851	Andersson, Master. Sigvard Harald Elias
## 852	Svensson, Mr. Johan
## 853	Boulos, Miss. Nourelain
## 854	Lines, Miss. Mary Conover
## 855	Carter, Mrs. Ernest Courtenay (Lilian Hughes)
## 856	Aks, Mrs. Sam (Leah Rosen)
## 857	Wick, Mrs. George Dennick (Mary Hitchcock)
## 858	Daly, Mr. Peter Denis
## 859	Baclini, Mrs. Solomon (Latifa Qurban)
## 860	Razi, Mr. Raihed
## 861	Hansen, Mr. Claus Peter
## 862	Giles, Mr. Frederick Edward
## 863	Swift, Mrs. Frederick Joel (Margaret Welles Barron)
## 864	Sage, Miss. Dorothy Edith "Dolly"
## 865	Gill, Mr. John William
## 866	Bystrom, Mrs. (Karolina)
## 867	Duran y More, Miss. Asuncion
## 868	Roebbling, Mr. Washington Augustus II
## 869	van Melkebeke, Mr. Philemon
## 870	Johnson, Master. Harold Theodor
## 871	Balkic, Mr. Cerin
## 872	Beckwith, Mrs. Richard Leonard (Sallie Monypeny)
## 873	Carlsson, Mr. Frans Olof
## 874	Vander Cruyssen, Mr. Victor
## 875	Abelson, Mrs. Samuel (Hannah Wizosky)
## 876	Najib, Miss. Adele Kiamie "Jane"
## 877	Gustafsson, Mr. Alfred Ossian
## 878	Petroff, Mr. Nedelio
## 879	Laleff, Mr. Kristo
## 880	Potter, Mrs. Thomas Jr (Lily Alexenia Wilson)
## 881	Shelley, Mrs. William (Imanita Parrish Hall)
## 882	Markun, Mr. Johann
## 883	Dahlberg, Miss. Gerda Ulrika
## 884	Banfield, Mr. Frederick James
## 885	Sutehall, Mr. Henry Jr
## 886	Rice, Mrs. William (Margaret Norton)
## 887	Montvila, Rev. Juozas
## 888	Graham, Miss. Margaret Edith
## 889	Johnston, Miss. Catherine Helen "Carrie"
## 890	Behr, Mr. Karl Howell
## 891	Dooley, Mr. Patrick
##	Sex Age SibSp Parch Ticket Fare Cabin

## 1	male	22.00	1	0	A/5 21171	7.2500	
## 2	female	38.00	1	0	PC 17599	71.2833	C85
## 3	female	26.00	0	0	STON/O2. 3101282	7.9250	
## 4	female	35.00	1	0	113803	53.1000	C123
## 5	male	35.00	0	0	373450	8.0500	
## 6	male	NA	0	0	330877	8.4583	
## 7	male	54.00	0	0	17463	51.8625	E46
## 8	male	2.00	3	1	349909	21.0750	
## 9	female	27.00	0	2	347742	11.1333	
## 10	female	14.00	1	0	237736	30.0708	
## 11	female	4.00	1	1	PP 9549	16.7000	G6
## 12	female	58.00	0	0	113783	26.5500	C103
## 13	male	20.00	0	0	A/5. 2151	8.0500	
## 14	male	39.00	1	5	347082	31.2750	
## 15	female	14.00	0	0	350406	7.8542	
## 16	female	55.00	0	0	248706	16.0000	
## 17	male	2.00	4	1	382652	29.1250	
## 18	male	NA	0	0	244373	13.0000	
## 19	female	31.00	1	0	345763	18.0000	
## 20	female	NA	0	0	2649	7.2250	
## 21	male	35.00	0	0	239865	26.0000	
## 22	male	34.00	0	0	248698	13.0000	D56
## 23	female	15.00	0	0	330923	8.0292	
## 24	male	28.00	0	0	113788	35.5000	A6
## 25	female	8.00	3	1	349909	21.0750	
## 26	female	38.00	1	5	347077	31.3875	
## 27	male	NA	0	0	2631	7.2250	
## 28	male	19.00	3	2	19950	263.0000	C23 C25 C27
## 29	female	NA	0	0	330959	7.8792	
## 30	male	NA	0	0	349216	7.8958	
## 31	male	40.00	0	0	PC 17601	27.7208	
## 32	female	NA	1	0	PC 17569	146.5208	B78
## 33	female	NA	0	0	335677	7.7500	
## 34	male	66.00	0	0	C.A. 24579	10.5000	
## 35	male	28.00	1	0	PC 17604	82.1708	
## 36	male	42.00	1	0	113789	52.0000	
## 37	male	NA	0	0	2677	7.2292	
## 38	male	21.00	0	0	A./5. 2152	8.0500	
## 39	female	18.00	2	0	345764	18.0000	
## 40	female	14.00	1	0	2651	11.2417	
## 41	female	40.00	1	0	7546	9.4750	
## 42	female	27.00	1	0	11668	21.0000	
## 43	male	NA	0	0	349253	7.8958	
## 44	female	3.00	1	2	SC/Paris 2123	41.5792	
## 45	female	19.00	0	0	330958	7.8792	
## 46	male	NA	0	0	S.C./A.4. 23567	8.0500	
## 47	male	NA	1	0	370371	15.5000	
## 48	female	NA	0	0	14311	7.7500	
## 49	male	NA	2	0	2662	21.6792	
## 50	female	18.00	1	0	349237	17.8000	
## 51	male	7.00	4	1	3101295	39.6875	

## 52	male	21.00	0	0	A/4. 39886	7.8000	
## 53	female	49.00	1	0	PC 17572	76.7292	D33
## 54	female	29.00	1	0	2926	26.0000	
## 55	male	65.00	0	1	113509	61.9792	B30
## 56	male	NA	0	0	19947	35.5000	C52
## 57	female	21.00	0	0	C.A. 31026	10.5000	
## 58	male	28.50	0	0	2697	7.2292	
## 59	female	5.00	1	2	C.A. 34651	27.7500	
## 60	male	11.00	5	2	CA 2144	46.9000	
## 61	male	22.00	0	0	2669	7.2292	
## 62	female	38.00	0	0	113572	80.0000	B28
## 63	male	45.00	1	0	36973	83.4750	C83
## 64	male	4.00	3	2	347088	27.9000	
## 65	male	NA	0	0	PC 17605	27.7208	
## 66	male	NA	1	1	2661	15.2458	
## 67	female	29.00	0	0	C.A. 29395	10.5000	F33
## 68	male	19.00	0	0	S.P. 3464	8.1583	
## 69	female	17.00	4	2	3101281	7.9250	
## 70	male	26.00	2	0	315151	8.6625	
## 71	male	32.00	0	0	C.A. 33111	10.5000	
## 72	female	16.00	5	2	CA 2144	46.9000	
## 73	male	21.00	0	0	S.O.C. 14879	73.5000	
## 74	male	26.00	1	0	2680	14.4542	
## 75	male	32.00	0	0	1601	56.4958	
## 76	male	25.00	0	0	348123	7.6500	F G73
## 77	male	NA	0	0	349208	7.8958	
## 78	male	NA	0	0	374746	8.0500	
## 79	male	0.83	0	2	248738	29.0000	
## 80	female	30.00	0	0	364516	12.4750	
## 81	male	22.00	0	0	345767	9.0000	
## 82	male	29.00	0	0	345779	9.5000	
## 83	female	NA	0	0	330932	7.7875	
## 84	male	28.00	0	0	113059	47.1000	
## 85	female	17.00	0	0	SO/C 14885	10.5000	
## 86	female	33.00	3	0	3101278	15.8500	
## 87	male	16.00	1	3	W./C. 6608	34.3750	
## 88	male	NA	0	0	SOTON/OQ 392086	8.0500	
## 89	female	23.00	3	2	19950	263.0000	C23 C25 C27
## 90	male	24.00	0	0	343275	8.0500	
## 91	male	29.00	0	0	343276	8.0500	
## 92	male	20.00	0	0	347466	7.8542	
## 93	male	46.00	1	0	W.E.P. 5734	61.1750	E31
## 94	male	26.00	1	2	C.A. 2315	20.5750	
## 95	male	59.00	0	0	364500	7.2500	
## 96	male	NA	0	0	374910	8.0500	
## 97	male	71.00	0	0	PC 17754	34.6542	A5
## 98	male	23.00	0	1	PC 17759	63.3583	D10 D12
## 99	female	34.00	0	1	231919	23.0000	
## 100	male	34.00	1	0	244367	26.0000	
## 101	female	28.00	0	0	349245	7.8958	
## 102	male	NA	0	0	349215	7.8958	

## 103	male	21.00	0	1		35281	77.2875	D26
## 104	male	33.00	0	0		7540	8.6542	
## 105	male	37.00	2	0		3101276	7.9250	
## 106	male	28.00	0	0		349207	7.8958	
## 107	female	21.00	0	0		343120	7.6500	
## 108	male	NA	0	0		312991	7.7750	
## 109	male	38.00	0	0		349249	7.8958	
## 110	female	NA	1	0		371110	24.1500	
## 111	male	47.00	0	0		110465	52.0000	C110
## 112	female	14.50	1	0		2665	14.4542	
## 113	male	22.00	0	0		324669	8.0500	
## 114	female	20.00	1	0		4136	9.8250	
## 115	female	17.00	0	0		2627	14.4583	
## 116	male	21.00	0	0	STON/O 2.	3101294	7.9250	
## 117	male	70.50	0	0		370369	7.7500	
## 118	male	29.00	1	0		11668	21.0000	
## 119	male	24.00	0	1	PC	17558	247.5208	B58 B60
## 120	female	2.00	4	2		347082	31.2750	
## 121	male	21.00	2	0	S.O.C.	14879	73.5000	
## 122	male	NA	0	0	A4.	54510	8.0500	
## 123	male	32.50	1	0		237736	30.0708	
## 124	female	32.50	0	0		27267	13.0000	E101
## 125	male	54.00	0	1		35281	77.2875	D26
## 126	male	12.00	1	0		2651	11.2417	
## 127	male	NA	0	0		370372	7.7500	
## 128	male	24.00	0	0	C	17369	7.1417	
## 129	female	NA	1	1		2668	22.3583	F E69
## 130	male	45.00	0	0		347061	6.9750	
## 131	male	33.00	0	0		349241	7.8958	
## 132	male	20.00	0	0	SOTON/O.Q.	3101307	7.0500	
## 133	female	47.00	1	0	A/5.	3337	14.5000	
## 134	female	29.00	1	0		228414	26.0000	
## 135	male	25.00	0	0	C.A.	29178	13.0000	
## 136	male	23.00	0	0	SC/PARIS	2133	15.0458	
## 137	female	19.00	0	2		11752	26.2833	D47
## 138	male	37.00	1	0		113803	53.1000	C123
## 139	male	16.00	0	0		7534	9.2167	
## 140	male	24.00	0	0	PC	17593	79.2000	B86
## 141	female	NA	0	2		2678	15.2458	
## 142	female	22.00	0	0		347081	7.7500	
## 143	female	24.00	1	0	STON/O2.	3101279	15.8500	
## 144	male	19.00	0	0		365222	6.7500	
## 145	male	18.00	0	0		231945	11.5000	
## 146	male	19.00	1	1	C.A.	33112	36.7500	
## 147	male	27.00	0	0		350043	7.7958	
## 148	female	9.00	2	2	W./C.	6608	34.3750	
## 149	male	36.50	0	2		230080	26.0000	F2
## 150	male	42.00	0	0		244310	13.0000	
## 151	male	51.00	0	0	S.O.P.	1166	12.5250	
## 152	female	22.00	1	0		113776	66.6000	C2
## 153	male	55.50	0	0	A.5.	11206	8.0500	

## 154	male	40.50	0	2	A/5. 851	14.5000	
## 155	male	NA	0	0	Fa 265302	7.3125	
## 156	male	51.00	0	1	PC 17597	61.3792	
## 157	female	16.00	0	0	35851	7.7333	
## 158	male	30.00	0	0	SOTON/OQ 392090	8.0500	
## 159	male	NA	0	0	315037	8.6625	
## 160	male	NA	8	2	CA. 2343	69.5500	
## 161	male	44.00	0	1	371362	16.1000	
## 162	female	40.00	0	0	C.A. 33595	15.7500	
## 163	male	26.00	0	0	347068	7.7750	
## 164	male	17.00	0	0	315093	8.6625	
## 165	male	1.00	4	1	3101295	39.6875	
## 166	male	9.00	0	2	363291	20.5250	
## 167	female	NA	0	1	113505	55.0000	E33
## 168	female	45.00	1	4	347088	27.9000	
## 169	male	NA	0	0	PC 17318	25.9250	
## 170	male	28.00	0	0	1601	56.4958	
## 171	male	61.00	0	0	111240	33.5000	B19
## 172	male	4.00	4	1	382652	29.1250	
## 173	female	1.00	1	1	347742	11.1333	
## 174	male	21.00	0	0	STON/O 2. 3101280	7.9250	
## 175	male	56.00	0	0	17764	30.6958	A7
## 176	male	18.00	1	1	350404	7.8542	
## 177	male	NA	3	1	4133	25.4667	
## 178	female	50.00	0	0	PC 17595	28.7125	C49
## 179	male	30.00	0	0	250653	13.0000	
## 180	male	36.00	0	0	LINE	0.0000	
## 181	female	NA	8	2	CA. 2343	69.5500	
## 182	male	NA	0	0	SC/PARIS 2131	15.0500	
## 183	male	9.00	4	2	347077	31.3875	
## 184	male	1.00	2	1	230136	39.0000	F4
## 185	female	4.00	0	2	315153	22.0250	
## 186	male	NA	0	0	113767	50.0000	A32
## 187	female	NA	1	0	370365	15.5000	
## 188	male	45.00	0	0	111428	26.5500	
## 189	male	40.00	1	1	364849	15.5000	
## 190	male	36.00	0	0	349247	7.8958	
## 191	female	32.00	0	0	234604	13.0000	
## 192	male	19.00	0	0	28424	13.0000	
## 193	female	19.00	1	0	350046	7.8542	
## 194	male	3.00	1	1	230080	26.0000	F2
## 195	female	44.00	0	0	PC 17610	27.7208	B4
## 196	female	58.00	0	0	PC 17569	146.5208	B80
## 197	male	NA	0	0	368703	7.7500	
## 198	male	42.00	0	1	4579	8.4042	
## 199	female	NA	0	0	370370	7.7500	
## 200	female	24.00	0	0	248747	13.0000	
## 201	male	28.00	0	0	345770	9.5000	
## 202	male	NA	8	2	CA. 2343	69.5500	
## 203	male	34.00	0	0	3101264	6.4958	
## 204	male	45.50	0	0	2628	7.2250	

## 205	male	18.00	0	0	A/5 3540	8.0500	
## 206	female	2.00	0	1	347054	10.4625	G6
## 207	male	32.00	1	0	3101278	15.8500	
## 208	male	26.00	0	0	2699	18.7875	
## 209	female	16.00	0	0	367231	7.7500	
## 210	male	40.00	0	0	112277	31.0000	A31
## 211	male	24.00	0	0	SOTON/O.Q. 3101311	7.0500	
## 212	female	35.00	0	0	F.C.C. 13528	21.0000	
## 213	male	22.00	0	0	A/5 21174	7.2500	
## 214	male	30.00	0	0	250646	13.0000	
## 215	male	NA	1	0	367229	7.7500	
## 216	female	31.00	1	0	35273	113.2750	D36
## 217	female	27.00	0	0	STON/O2. 3101283	7.9250	
## 218	male	42.00	1	0	243847	27.0000	
## 219	female	32.00	0	0	11813	76.2917	D15
## 220	male	30.00	0	0	W/C 14208	10.5000	
## 221	male	16.00	0	0	SOTON/OQ 392089	8.0500	
## 222	male	27.00	0	0	220367	13.0000	
## 223	male	51.00	0	0	21440	8.0500	
## 224	male	NA	0	0	349234	7.8958	
## 225	male	38.00	1	0	19943	90.0000	C93
## 226	male	22.00	0	0	PP 4348	9.3500	
## 227	male	19.00	0	0	SW/PP 751	10.5000	
## 228	male	20.50	0	0	A/5 21173	7.2500	
## 229	male	18.00	0	0	236171	13.0000	
## 230	female	NA	3	1	4133	25.4667	
## 231	female	35.00	1	0	36973	83.4750	C83
## 232	male	29.00	0	0	347067	7.7750	
## 233	male	59.00	0	0	237442	13.5000	
## 234	female	5.00	4	2	347077	31.3875	
## 235	male	24.00	0	0	C.A. 29566	10.5000	
## 236	female	NA	0	0	W./C. 6609	7.5500	
## 237	male	44.00	1	0	26707	26.0000	
## 238	female	8.00	0	2	C.A. 31921	26.2500	
## 239	male	19.00	0	0	28665	10.5000	
## 240	male	33.00	0	0	SCO/W 1585	12.2750	
## 241	female	NA	1	0	2665	14.4542	
## 242	female	NA	1	0	367230	15.5000	
## 243	male	29.00	0	0	W./C. 14263	10.5000	
## 244	male	22.00	0	0	STON/O 2. 3101275	7.1250	
## 245	male	30.00	0	0	2694	7.2250	
## 246	male	44.00	2	0	19928	90.0000	C78
## 247	female	25.00	0	0	347071	7.7750	
## 248	female	24.00	0	2	250649	14.5000	
## 249	male	37.00	1	1	11751	52.5542	D35
## 250	male	54.00	1	0	244252	26.0000	
## 251	male	NA	0	0	362316	7.2500	
## 252	female	29.00	1	1	347054	10.4625	G6
## 253	male	62.00	0	0	113514	26.5500	C87
## 254	male	30.00	1	0	A/5. 3336	16.1000	
## 255	female	41.00	0	2	370129	20.2125	

## 256	female	29.00	0	2	2650	15.2458	
## 257	female	NA	0	0	PC 17585	79.2000	
## 258	female	30.00	0	0	110152	86.5000	B77
## 259	female	35.00	0	0	PC 17755	512.3292	
## 260	female	50.00	0	1	230433	26.0000	
## 261	male	NA	0	0	384461	7.7500	
## 262	male	3.00	4	2	347077	31.3875	
## 263	male	52.00	1	1	110413	79.6500	E67
## 264	male	40.00	0	0	112059	0.0000	B94
## 265	female	NA	0	0	382649	7.7500	
## 266	male	36.00	0	0	C.A. 17248	10.5000	
## 267	male	16.00	4	1	3101295	39.6875	
## 268	male	25.00	1	0	347083	7.7750	
## 269	female	58.00	0	1	PC 17582	153.4625	C125
## 270	female	35.00	0	0	PC 17760	135.6333	C99
## 271	male	NA	0	0	113798	31.0000	
## 272	male	25.00	0	0	LINE	0.0000	
## 273	female	41.00	0	1	250644	19.5000	
## 274	male	37.00	0	1	PC 17596	29.7000	C118
## 275	female	NA	0	0	370375	7.7500	
## 276	female	63.00	1	0	13502	77.9583	D7
## 277	female	45.00	0	0	347073	7.7500	
## 278	male	NA	0	0	239853	0.0000	
## 279	male	7.00	4	1	382652	29.1250	
## 280	female	35.00	1	1	C.A. 2673	20.2500	
## 281	male	65.00	0	0	336439	7.7500	
## 282	male	28.00	0	0	347464	7.8542	
## 283	male	16.00	0	0	345778	9.5000	
## 284	male	19.00	0	0	A/5. 10482	8.0500	
## 285	male	NA	0	0	113056	26.0000	A19
## 286	male	33.00	0	0	349239	8.6625	
## 287	male	30.00	0	0	345774	9.5000	
## 288	male	22.00	0	0	349206	7.8958	
## 289	male	42.00	0	0	237798	13.0000	
## 290	female	22.00	0	0	370373	7.7500	
## 291	female	26.00	0	0	19877	78.8500	
## 292	female	19.00	1	0	11967	91.0792	B49
## 293	male	36.00	0	0	SC/Paris 2163	12.8750	D
## 294	female	24.00	0	0	349236	8.8500	
## 295	male	24.00	0	0	349233	7.8958	
## 296	male	NA	0	0	PC 17612	27.7208	
## 297	male	23.50	0	0	2693	7.2292	
## 298	female	2.00	1	2	113781	151.5500	C22 C26
## 299	male	NA	0	0	19988	30.5000	C106
## 300	female	50.00	0	1	PC 17558	247.5208	B58 B60
## 301	female	NA	0	0	9234	7.7500	
## 302	male	NA	2	0	367226	23.2500	
## 303	male	19.00	0	0	LINE	0.0000	
## 304	female	NA	0	0	226593	12.3500	E101
## 305	male	NA	0	0	A/5 2466	8.0500	
## 306	male	0.92	1	2	113781	151.5500	C22 C26

## 307 female	NA	0	0	17421	110.8833	
## 308 female	17.00	1	0	PC 17758	108.9000	C65
## 309 male	30.00	1	0	P/PP 3381	24.0000	
## 310 female	30.00	0	0	PC 17485	56.9292	E36
## 311 female	24.00	0	0	11767	83.1583	C54
## 312 female	18.00	2	2	PC 17608	262.3750	B57 B59 B63 B66
## 313 female	26.00	1	1	250651	26.0000	
## 314 male	28.00	0	0	349243	7.8958	
## 315 male	43.00	1	1	F.C.C. 13529	26.2500	
## 316 female	26.00	0	0	347470	7.8542	
## 317 female	24.00	1	0	244367	26.0000	
## 318 male	54.00	0	0	29011	14.0000	
## 319 female	31.00	0	2	36928	164.8667	C7
## 320 female	40.00	1	1	16966	134.5000	E34
## 321 male	22.00	0	0	A/5 21172	7.2500	
## 322 male	27.00	0	0	349219	7.8958	
## 323 female	30.00	0	0	234818	12.3500	
## 324 female	22.00	1	1	248738	29.0000	
## 325 male	NA	8	2	CA. 2343	69.5500	
## 326 female	36.00	0	0	PC 17760	135.6333	C32
## 327 male	61.00	0	0	345364	6.2375	
## 328 female	36.00	0	0	28551	13.0000	D
## 329 female	31.00	1	1	363291	20.5250	
## 330 female	16.00	0	1	111361	57.9792	B18
## 331 female	NA	2	0	367226	23.2500	
## 332 male	45.50	0	0	113043	28.5000	C124
## 333 male	38.00	0	1	PC 17582	153.4625	C91
## 334 male	16.00	2	0	345764	18.0000	
## 335 female	NA	1	0	PC 17611	133.6500	
## 336 male	NA	0	0	349225	7.8958	
## 337 male	29.00	1	0	113776	66.6000	C2
## 338 female	41.00	0	0	16966	134.5000	E40
## 339 male	45.00	0	0	7598	8.0500	
## 340 male	45.00	0	0	113784	35.5000	T
## 341 male	2.00	1	1	230080	26.0000	F2
## 342 female	24.00	3	2	19950	263.0000	C23 C25 C27
## 343 male	28.00	0	0	248740	13.0000	
## 344 male	25.00	0	0	244361	13.0000	
## 345 male	36.00	0	0	229236	13.0000	
## 346 female	24.00	0	0	248733	13.0000	F33
## 347 female	40.00	0	0	31418	13.0000	
## 348 female	NA	1	0	386525	16.1000	
## 349 male	3.00	1	1	C.A. 37671	15.9000	
## 350 male	42.00	0	0	315088	8.6625	
## 351 male	23.00	0	0	7267	9.2250	
## 352 male	NA	0	0	113510	35.0000	C128
## 353 male	15.00	1	1	2695	7.2292	
## 354 male	25.00	1	0	349237	17.8000	
## 355 male	NA	0	0	2647	7.2250	
## 356 male	28.00	0	0	345783	9.5000	
## 357 female	22.00	0	1	113505	55.0000	E33

## 358	female	38.00	0	0	237671	13.0000	
## 359	female	NA	0	0	330931	7.8792	
## 360	female	NA	0	0	330980	7.8792	
## 361	male	40.00	1	4	347088	27.9000	
## 362	male	29.00	1	0	SC/PARIS 2167	27.7208	
## 363	female	45.00	0	1	2691	14.4542	
## 364	male	35.00	0	0	SOTON/O.Q. 3101310	7.0500	
## 365	male	NA	1	0	370365	15.5000	
## 366	male	30.00	0	0	C 7076	7.2500	
## 367	female	60.00	1	0	110813	75.2500	D37
## 368	female	NA	0	0	2626	7.2292	
## 369	female	NA	0	0	14313	7.7500	
## 370	female	24.00	0	0	PC 17477	69.3000	B35
## 371	male	25.00	1	0	11765	55.4417	E50
## 372	male	18.00	1	0	3101267	6.4958	
## 373	male	19.00	0	0	323951	8.0500	
## 374	male	22.00	0	0	PC 17760	135.6333	
## 375	female	3.00	3	1	349909	21.0750	
## 376	female	NA	1	0	PC 17604	82.1708	
## 377	female	22.00	0	0	C 7077	7.2500	
## 378	male	27.00	0	2	113503	211.5000	C82
## 379	male	20.00	0	0	2648	4.0125	
## 380	male	19.00	0	0	347069	7.7750	
## 381	female	42.00	0	0	PC 17757	227.5250	
## 382	female	1.00	0	2	2653	15.7417	
## 383	male	32.00	0	0	STON/O 2. 3101293	7.9250	
## 384	female	35.00	1	0	113789	52.0000	
## 385	male	NA	0	0	349227	7.8958	
## 386	male	18.00	0	0	S.O.C. 14879	73.5000	
## 387	male	1.00	5	2	CA 2144	46.9000	
## 388	female	36.00	0	0	27849	13.0000	
## 389	male	NA	0	0	367655	7.7292	
## 390	female	17.00	0	0	SC 1748	12.0000	
## 391	male	36.00	1	2	113760	120.0000	B96 B98
## 392	male	21.00	0	0	350034	7.7958	
## 393	male	28.00	2	0	3101277	7.9250	
## 394	female	23.00	1	0	35273	113.2750	D36
## 395	female	24.00	0	2	PP 9549	16.7000	G6
## 396	male	22.00	0	0	350052	7.7958	
## 397	female	31.00	0	0	350407	7.8542	
## 398	male	46.00	0	0	28403	26.0000	
## 399	male	23.00	0	0	244278	10.5000	
## 400	female	28.00	0	0	240929	12.6500	
## 401	male	39.00	0	0	STON/O 2. 3101289	7.9250	
## 402	male	26.00	0	0	341826	8.0500	
## 403	female	21.00	1	0	4137	9.8250	
## 404	male	28.00	1	0	STON/O2. 3101279	15.8500	
## 405	female	20.00	0	0	315096	8.6625	
## 406	male	34.00	1	0	28664	21.0000	
## 407	male	51.00	0	0	347064	7.7500	
## 408	male	3.00	1	1	29106	18.7500	

## 409	male	21.00	0	0		312992	7.7750	
## 410	female	NA	3	1		4133	25.4667	
## 411	male	NA	0	0		349222	7.8958	
## 412	male	NA	0	0		394140	6.8583	
## 413	female	33.00	1	0		19928	90.0000	C78
## 414	male	NA	0	0		239853	0.0000	
## 415	male	44.00	0	0	STON/O 2.	3101269	7.9250	
## 416	female	NA	0	0		343095	8.0500	
## 417	female	34.00	1	1		28220	32.5000	
## 418	female	18.00	0	2		250652	13.0000	
## 419	male	30.00	0	0		28228	13.0000	
## 420	female	10.00	0	2		345773	24.1500	
## 421	male	NA	0	0		349254	7.8958	
## 422	male	21.00	0	0	A/5.	13032	7.7333	
## 423	male	29.00	0	0		315082	7.8750	
## 424	female	28.00	1	1		347080	14.4000	
## 425	male	18.00	1	1		370129	20.2125	
## 426	male	NA	0	0	A/4.	34244	7.2500	
## 427	female	28.00	1	0		2003	26.0000	
## 428	female	19.00	0	0		250655	26.0000	
## 429	male	NA	0	0		364851	7.7500	
## 430	male	32.00	0	0	SOTON/O.Q.	392078	8.0500	E10
## 431	male	28.00	0	0		110564	26.5500	C52
## 432	female	NA	1	0		376564	16.1000	
## 433	female	42.00	1	0	SC/AH	3085	26.0000	
## 434	male	17.00	0	0	STON/O 2.	3101274	7.1250	
## 435	male	50.00	1	0		13507	55.9000	E44
## 436	female	14.00	1	2		113760	120.0000	B96 B98
## 437	female	21.00	2	2	W./C.	6608	34.3750	
## 438	female	24.00	2	3		29106	18.7500	
## 439	male	64.00	1	4		19950	263.0000	C23 C25 C27
## 440	male	31.00	0	0	C.A.	18723	10.5000	
## 441	female	45.00	1	1	F.C.C.	13529	26.2500	
## 442	male	20.00	0	0		345769	9.5000	
## 443	male	25.00	1	0		347076	7.7750	
## 444	female	28.00	0	0		230434	13.0000	
## 445	male	NA	0	0		65306	8.1125	
## 446	male	4.00	0	2		33638	81.8583	A34
## 447	female	13.00	0	1		250644	19.5000	
## 448	male	34.00	0	0		113794	26.5500	
## 449	female	5.00	2	1		2666	19.2583	
## 450	male	52.00	0	0		113786	30.5000	C104
## 451	male	36.00	1	2	C.A.	34651	27.7500	
## 452	male	NA	1	0		65303	19.9667	
## 453	male	30.00	0	0		113051	27.7500	C111
## 454	male	49.00	1	0		17453	89.1042	C92
## 455	male	NA	0	0	A/5	2817	8.0500	
## 456	male	29.00	0	0		349240	7.8958	
## 457	male	65.00	0	0		13509	26.5500	E38
## 458	female	NA	1	0		17464	51.8625	D21
## 459	female	50.00	0	0	F.C.C.	13531	10.5000	

## 460	male	NA	0	0	371060	7.7500	
## 461	male	48.00	0	0	19952	26.5500	E12
## 462	male	34.00	0	0	364506	8.0500	
## 463	male	47.00	0	0	111320	38.5000	E63
## 464	male	48.00	0	0	234360	13.0000	
## 465	male	NA	0	0	A/S 2816	8.0500	
## 466	male	38.00	0	0	SOTON/O.Q. 3101306	7.0500	
## 467	male	NA	0	0	239853	0.0000	
## 468	male	56.00	0	0	113792	26.5500	
## 469	male	NA	0	0	36209	7.7250	
## 470	female	0.75	2	1	2666	19.2583	
## 471	male	NA	0	0	323592	7.2500	
## 472	male	38.00	0	0	315089	8.6625	
## 473	female	33.00	1	2	C.A. 34651	27.7500	
## 474	female	23.00	0	0	SC/AH Basle 541	13.7917	D
## 475	female	22.00	0	0	7553	9.8375	
## 476	male	NA	0	0	110465	52.0000	A14
## 477	male	34.00	1	0	31027	21.0000	
## 478	male	29.00	1	0	3460	7.0458	
## 479	male	22.00	0	0	350060	7.5208	
## 480	female	2.00	0	1	3101298	12.2875	
## 481	male	9.00	5	2	CA 2144	46.9000	
## 482	male	NA	0	0	239854	0.0000	
## 483	male	50.00	0	0	A/5 3594	8.0500	
## 484	female	63.00	0	0	4134	9.5875	
## 485	male	25.00	1	0	11967	91.0792	B49
## 486	female	NA	3	1	4133	25.4667	
## 487	female	35.00	1	0	19943	90.0000	C93
## 488	male	58.00	0	0	11771	29.7000	B37
## 489	male	30.00	0	0	A.5. 18509	8.0500	
## 490	male	9.00	1	1	C.A. 37671	15.9000	
## 491	male	NA	1	0	65304	19.9667	
## 492	male	21.00	0	0	SOTON/OQ 3101317	7.2500	
## 493	male	55.00	0	0	113787	30.5000	C30
## 494	male	71.00	0	0	PC 17609	49.5042	
## 495	male	21.00	0	0	A/4 45380	8.0500	
## 496	male	NA	0	0	2627	14.4583	
## 497	female	54.00	1	0	36947	78.2667	D20
## 498	male	NA	0	0	C.A. 6212	15.1000	
## 499	female	25.00	1	2	113781	151.5500	C22 C26
## 500	male	24.00	0	0	350035	7.7958	
## 501	male	17.00	0	0	315086	8.6625	
## 502	female	21.00	0	0	364846	7.7500	
## 503	female	NA	0	0	330909	7.6292	
## 504	female	37.00	0	0	4135	9.5875	
## 505	female	16.00	0	0	110152	86.5000	B79
## 506	male	18.00	1	0	PC 17758	108.9000	C65
## 507	female	33.00	0	2	26360	26.0000	
## 508	male	NA	0	0	111427	26.5500	
## 509	male	28.00	0	0	C 4001	22.5250	
## 510	male	26.00	0	0	1601	56.4958	

## 511	male	29.00	0	0	382651	7.7500	
## 512	male	NA	0	0	SOTON/OQ 3101316	8.0500	
## 513	male	36.00	0	0	PC 17473	26.2875	E25
## 514	female	54.00	1	0	PC 17603	59.4000	
## 515	male	24.00	0	0	349209	7.4958	
## 516	male	47.00	0	0	36967	34.0208	D46
## 517	female	34.00	0	0	C.A. 34260	10.5000	F33
## 518	male	NA	0	0	371110	24.1500	
## 519	female	36.00	1	0	226875	26.0000	
## 520	male	32.00	0	0	349242	7.8958	
## 521	female	30.00	0	0	12749	93.5000	B73
## 522	male	22.00	0	0	349252	7.8958	
## 523	male	NA	0	0	2624	7.2250	
## 524	female	44.00	0	1	111361	57.9792	B18
## 525	male	NA	0	0	2700	7.2292	
## 526	male	40.50	0	0	367232	7.7500	
## 527	female	50.00	0	0	W./C. 14258	10.5000	
## 528	male	NA	0	0	PC 17483	221.7792	C95
## 529	male	39.00	0	0	3101296	7.9250	
## 530	male	23.00	2	1	29104	11.5000	
## 531	female	2.00	1	1	26360	26.0000	
## 532	male	NA	0	0	2641	7.2292	
## 533	male	17.00	1	1	2690	7.2292	
## 534	female	NA	0	2	2668	22.3583	
## 535	female	30.00	0	0	315084	8.6625	
## 536	female	7.00	0	2	F.C.C. 13529	26.2500	
## 537	male	45.00	0	0	113050	26.5500	B38
## 538	female	30.00	0	0	PC 17761	106.4250	
## 539	male	NA	0	0	364498	14.5000	
## 540	female	22.00	0	2	13568	49.5000	B39
## 541	female	36.00	0	2	WE/P 5735	71.0000	B22
## 542	female	9.00	4	2	347082	31.2750	
## 543	female	11.00	4	2	347082	31.2750	
## 544	male	32.00	1	0	2908	26.0000	
## 545	male	50.00	1	0	PC 17761	106.4250	C86
## 546	male	64.00	0	0	693	26.0000	
## 547	female	19.00	1	0	2908	26.0000	
## 548	male	NA	0	0	SC/PARIS 2146	13.8625	
## 549	male	33.00	1	1	363291	20.5250	
## 550	male	8.00	1	1	C.A. 33112	36.7500	
## 551	male	17.00	0	2	17421	110.8833	C70
## 552	male	27.00	0	0	244358	26.0000	
## 553	male	NA	0	0	330979	7.8292	
## 554	male	22.00	0	0	2620	7.2250	
## 555	female	22.00	0	0	347085	7.7750	
## 556	male	62.00	0	0	113807	26.5500	
## 557	female	48.00	1	0	11755	39.6000	A16
## 558	male	NA	0	0	PC 17757	227.5250	
## 559	female	39.00	1	1	110413	79.6500	E67
## 560	female	36.00	1	0	345572	17.4000	
## 561	male	NA	0	0	372622	7.7500	

## 562	male	40.00	0	0	349251	7.8958	
## 563	male	28.00	0	0	218629	13.5000	
## 564	male	NA	0	0	SOTON/OQ 392082	8.0500	
## 565	female	NA	0	0	SOTON/O.Q. 392087	8.0500	
## 566	male	24.00	2	0	A/4 48871	24.1500	
## 567	male	19.00	0	0	349205	7.8958	
## 568	female	29.00	0	4	349909	21.0750	
## 569	male	NA	0	0	2686	7.2292	
## 570	male	32.00	0	0	350417	7.8542	
## 571	male	62.00	0	0	S.W./PP 752	10.5000	
## 572	female	53.00	2	0	11769	51.4792	C101
## 573	male	36.00	0	0	PC 17474	26.3875	E25
## 574	female	NA	0	0	14312	7.7500	
## 575	male	16.00	0	0	A/4. 20589	8.0500	
## 576	male	19.00	0	0	358585	14.5000	
## 577	female	34.00	0	0	243880	13.0000	
## 578	female	39.00	1	0	13507	55.9000	E44
## 579	female	NA	1	0	2689	14.4583	
## 580	male	32.00	0	0	STON/O 2. 3101286	7.9250	
## 581	female	25.00	1	1	237789	30.0000	
## 582	female	39.00	1	1	17421	110.8833	C68
## 583	male	54.00	0	0	28403	26.0000	
## 584	male	36.00	0	0	13049	40.1250	A10
## 585	male	NA	0	0	3411	8.7125	
## 586	female	18.00	0	2	110413	79.6500	E68
## 587	male	47.00	0	0	237565	15.0000	
## 588	male	60.00	1	1	13567	79.2000	B41
## 589	male	22.00	0	0	14973	8.0500	
## 590	male	NA	0	0	A./5. 3235	8.0500	
## 591	male	35.00	0	0	STON/O 2. 3101273	7.1250	
## 592	female	52.00	1	0	36947	78.2667	D20
## 593	male	47.00	0	0	A/5 3902	7.2500	
## 594	female	NA	0	2	364848	7.7500	
## 595	male	37.00	1	0	SC/AH 29037	26.0000	
## 596	male	36.00	1	1	345773	24.1500	
## 597	female	NA	0	0	248727	33.0000	
## 598	male	49.00	0	0	LINE	0.0000	
## 599	male	NA	0	0	2664	7.2250	
## 600	male	49.00	1	0	PC 17485	56.9292	A20
## 601	female	24.00	2	1	243847	27.0000	
## 602	male	NA	0	0	349214	7.8958	
## 603	male	NA	0	0	113796	42.4000	
## 604	male	44.00	0	0	364511	8.0500	
## 605	male	35.00	0	0	111426	26.5500	
## 606	male	36.00	1	0	349910	15.5500	
## 607	male	30.00	0	0	349246	7.8958	
## 608	male	27.00	0	0	113804	30.5000	
## 609	female	22.00	1	2	SC/Paris 2123	41.5792	
## 610	female	40.00	0	0	PC 17582	153.4625	C125
## 611	female	39.00	1	5	347082	31.2750	
## 612	male	NA	0	0	SOTON/O.Q. 3101305	7.0500	

## 613	female	NA	1	0		367230	15.5000	
## 614	male	NA	0	0		370377	7.7500	
## 615	male	35.00	0	0		364512	8.0500	
## 616	female	24.00	1	2		220845	65.0000	
## 617	male	34.00	1	1		347080	14.4000	
## 618	female	26.00	1	0	A/5.	3336	16.1000	
## 619	female	4.00	2	1		230136	39.0000	F4
## 620	male	26.00	0	0		31028	10.5000	
## 621	male	27.00	1	0		2659	14.4542	
## 622	male	42.00	1	0		11753	52.5542	D19
## 623	male	20.00	1	1		2653	15.7417	
## 624	male	21.00	0	0		350029	7.8542	
## 625	male	21.00	0	0		54636	16.1000	
## 626	male	61.00	0	0		36963	32.3208	D50
## 627	male	57.00	0	0		219533	12.3500	
## 628	female	21.00	0	0		13502	77.9583	D9
## 629	male	26.00	0	0		349224	7.8958	
## 630	male	NA	0	0		334912	7.7333	
## 631	male	80.00	0	0		27042	30.0000	A23
## 632	male	51.00	0	0		347743	7.0542	
## 633	male	32.00	0	0		13214	30.5000	B50
## 634	male	NA	0	0		112052	0.0000	
## 635	female	9.00	3	2		347088	27.9000	
## 636	female	28.00	0	0		237668	13.0000	
## 637	male	32.00	0	0	STON/O 2.	3101292	7.9250	
## 638	male	31.00	1	1	C.A.	31921	26.2500	
## 639	female	41.00	0	5		3101295	39.6875	
## 640	male	NA	1	0		376564	16.1000	
## 641	male	20.00	0	0		350050	7.8542	
## 642	female	24.00	0	0	PC	17477	69.3000	B35
## 643	female	2.00	3	2		347088	27.9000	
## 644	male	NA	0	0		1601	56.4958	
## 645	female	0.75	2	1		2666	19.2583	
## 646	male	48.00	1	0	PC	17572	76.7292	D33
## 647	male	19.00	0	0		349231	7.8958	
## 648	male	56.00	0	0		13213	35.5000	A26
## 649	male	NA	0	0	S.O./P.P.	751	7.5500	
## 650	female	23.00	0	0	CA.	2314	7.5500	
## 651	male	NA	0	0		349221	7.8958	
## 652	female	18.00	0	1		231919	23.0000	
## 653	male	21.00	0	0		8475	8.4333	
## 654	female	NA	0	0		330919	7.8292	
## 655	female	18.00	0	0		365226	6.7500	
## 656	male	24.00	2	0	S.O.C.	14879	73.5000	
## 657	male	NA	0	0		349223	7.8958	
## 658	female	32.00	1	1		364849	15.5000	
## 659	male	23.00	0	0		29751	13.0000	
## 660	male	58.00	0	2		35273	113.2750	D48
## 661	male	50.00	2	0	PC	17611	133.6500	
## 662	male	40.00	0	0		2623	7.2250	
## 663	male	47.00	0	0		5727	25.5875	E58

## 664	male	36.00	0	0	349210	7.4958	
## 665	male	20.00	1	0	STON/O 2. 3101285	7.9250	
## 666	male	32.00	2	0	S.O.C. 14879	73.5000	
## 667	male	25.00	0	0	234686	13.0000	
## 668	male	NA	0	0	312993	7.7750	
## 669	male	43.00	0	0	A/5 3536	8.0500	
## 670	female	NA	1	0	19996	52.0000	C126
## 671	female	40.00	1	1	29750	39.0000	
## 672	male	31.00	1	0	F.C. 12750	52.0000	B71
## 673	male	70.00	0	0	C.A. 24580	10.5000	
## 674	male	31.00	0	0	244270	13.0000	
## 675	male	NA	0	0	239856	0.0000	
## 676	male	18.00	0	0	349912	7.7750	
## 677	male	24.50	0	0	342826	8.0500	
## 678	female	18.00	0	0	4138	9.8417	
## 679	female	43.00	1	6	CA 2144	46.9000	
## 680	male	36.00	0	1	PC 17755	512.3292	B51 B53 B55
## 681	female	NA	0	0	330935	8.1375	
## 682	male	27.00	0	0	PC 17572	76.7292	D49
## 683	male	20.00	0	0	6563	9.2250	
## 684	male	14.00	5	2	CA 2144	46.9000	
## 685	male	60.00	1	1	29750	39.0000	
## 686	male	25.00	1	2	SC/Paris 2123	41.5792	
## 687	male	14.00	4	1	3101295	39.6875	
## 688	male	19.00	0	0	349228	10.1708	
## 689	male	18.00	0	0	350036	7.7958	
## 690	female	15.00	0	1	24160	211.3375	B5
## 691	male	31.00	1	0	17474	57.0000	B20
## 692	female	4.00	0	1	349256	13.4167	
## 693	male	NA	0	0	1601	56.4958	
## 694	male	25.00	0	0	2672	7.2250	
## 695	male	60.00	0	0	113800	26.5500	
## 696	male	52.00	0	0	248731	13.5000	
## 697	male	44.00	0	0	363592	8.0500	
## 698	female	NA	0	0	35852	7.7333	
## 699	male	49.00	1	1	17421	110.8833	C68
## 700	male	42.00	0	0	348121	7.6500	F G63
## 701	female	18.00	1	0	PC 17757	227.5250	C62 C64
## 702	male	35.00	0	0	PC 17475	26.2875	E24
## 703	female	18.00	0	1	2691	14.4542	
## 704	male	25.00	0	0	36864	7.7417	
## 705	male	26.00	1	0	350025	7.8542	
## 706	male	39.00	0	0	250655	26.0000	
## 707	female	45.00	0	0	223596	13.5000	
## 708	male	42.00	0	0	PC 17476	26.2875	E24
## 709	female	22.00	0	0	113781	151.5500	
## 710	male	NA	1	1	2661	15.2458	
## 711	female	24.00	0	0	PC 17482	49.5042	C90
## 712	male	NA	0	0	113028	26.5500	C124
## 713	male	48.00	1	0	19996	52.0000	C126
## 714	male	29.00	0	0	7545	9.4833	

## 715	male	52.00	0	0	250647	13.0000	
## 716	male	19.00	0	0	348124	7.6500	F G73
## 717	female	38.00	0	0	PC 17757	227.5250	C45
## 718	female	27.00	0	0	34218	10.5000	E101
## 719	male	NA	0	0	36568	15.5000	
## 720	male	33.00	0	0	347062	7.7750	
## 721	female	6.00	0	1	248727	33.0000	
## 722	male	17.00	1	0	350048	7.0542	
## 723	male	34.00	0	0	12233	13.0000	
## 724	male	50.00	0	0	250643	13.0000	
## 725	male	27.00	1	0	113806	53.1000	E8
## 726	male	20.00	0	0	315094	8.6625	
## 727	female	30.00	3	0	31027	21.0000	
## 728	female	NA	0	0	36866	7.7375	
## 729	male	25.00	1	0	236853	26.0000	
## 730	female	25.00	1	0	STON/O2. 3101271	7.9250	
## 731	female	29.00	0	0	24160	211.3375	B5
## 732	male	11.00	0	0	2699	18.7875	
## 733	male	NA	0	0	239855	0.0000	
## 734	male	23.00	0	0	28425	13.0000	
## 735	male	23.00	0	0	233639	13.0000	
## 736	male	28.50	0	0	54636	16.1000	
## 737	female	48.00	1	3	W./C. 6608	34.3750	
## 738	male	35.00	0	0	PC 17755	512.3292	B101
## 739	male	NA	0	0	349201	7.8958	
## 740	male	NA	0	0	349218	7.8958	
## 741	male	NA	0	0	16988	30.0000	D45
## 742	male	36.00	1	0	19877	78.8500	C46
## 743	female	21.00	2	2	PC 17608	262.3750	B57 B59 B63 B66
## 744	male	24.00	1	0	376566	16.1000	
## 745	male	31.00	0	0	STON/O 2. 3101288	7.9250	
## 746	male	70.00	1	1	WE/P 5735	71.0000	B22
## 747	male	16.00	1	1	C.A. 2673	20.2500	
## 748	female	30.00	0	0	250648	13.0000	
## 749	male	19.00	1	0	113773	53.1000	D30
## 750	male	31.00	0	0	335097	7.7500	
## 751	female	4.00	1	1	29103	23.0000	
## 752	male	6.00	0	1	392096	12.4750	E121
## 753	male	33.00	0	0	345780	9.5000	
## 754	male	23.00	0	0	349204	7.8958	
## 755	female	48.00	1	2	220845	65.0000	
## 756	male	0.67	1	1	250649	14.5000	
## 757	male	28.00	0	0	350042	7.7958	
## 758	male	18.00	0	0	29108	11.5000	
## 759	male	34.00	0	0	363294	8.0500	
## 760	female	33.00	0	0	110152	86.5000	B77
## 761	male	NA	0	0	358585	14.5000	
## 762	male	41.00	0	0	SOTON/O2 3101272	7.1250	
## 763	male	20.00	0	0	2663	7.2292	
## 764	female	36.00	1	2	113760	120.0000	B96 B98
## 765	male	16.00	0	0	347074	7.7750	

## 766	female	51.00	1	0	13502	77.9583	D11
## 767	male	NA	0	0	112379	39.6000	
## 768	female	30.50	0	0	364850	7.7500	
## 769	male	NA	1	0	371110	24.1500	
## 770	male	32.00	0	0	8471	8.3625	
## 771	male	24.00	0	0	345781	9.5000	
## 772	male	48.00	0	0	350047	7.8542	
## 773	female	57.00	0	0	S.O./P.P. 3	10.5000	E77
## 774	male	NA	0	0	2674	7.2250	
## 775	female	54.00	1	3	29105	23.0000	
## 776	male	18.00	0	0	347078	7.7500	
## 777	male	NA	0	0	383121	7.7500	F38
## 778	female	5.00	0	0	364516	12.4750	
## 779	male	NA	0	0	36865	7.7375	
## 780	female	43.00	0	1	24160	211.3375	B3
## 781	female	13.00	0	0	2687	7.2292	
## 782	female	17.00	1	0	17474	57.0000	B20
## 783	male	29.00	0	0	113501	30.0000	D6
## 784	male	NA	1	2	W./C. 6607	23.4500	
## 785	male	25.00	0	0	SOTON/O.Q. 3101312	7.0500	
## 786	male	25.00	0	0	374887	7.2500	
## 787	female	18.00	0	0	3101265	7.4958	
## 788	male	8.00	4	1	382652	29.1250	
## 789	male	1.00	1	2	C.A. 2315	20.5750	
## 790	male	46.00	0	0	PC 17593	79.2000	B82 B84
## 791	male	NA	0	0	12460	7.7500	
## 792	male	16.00	0	0	239865	26.0000	
## 793	female	NA	8	2	CA. 2343	69.5500	
## 794	male	NA	0	0	PC 17600	30.6958	
## 795	male	25.00	0	0	349203	7.8958	
## 796	male	39.00	0	0	28213	13.0000	
## 797	female	49.00	0	0	17465	25.9292	D17
## 798	female	31.00	0	0	349244	8.6833	
## 799	male	30.00	0	0	2685	7.2292	
## 800	female	30.00	1	1	345773	24.1500	
## 801	male	34.00	0	0	250647	13.0000	
## 802	female	31.00	1	1	C.A. 31921	26.2500	
## 803	male	11.00	1	2	113760	120.0000	B96 B98
## 804	male	0.42	0	1	2625	8.5167	
## 805	male	27.00	0	0	347089	6.9750	
## 806	male	31.00	0	0	347063	7.7750	
## 807	male	39.00	0	0	112050	0.0000	A36
## 808	female	18.00	0	0	347087	7.7750	
## 809	male	39.00	0	0	248723	13.0000	
## 810	female	33.00	1	0	113806	53.1000	E8
## 811	male	26.00	0	0	3474	7.8875	
## 812	male	39.00	0	0	A/4 48871	24.1500	
## 813	male	35.00	0	0	28206	10.5000	
## 814	female	6.00	4	2	347082	31.2750	
## 815	male	30.50	0	0	364499	8.0500	
## 816	male	NA	0	0	112058	0.0000	B102

## 817	female	23.00	0	0	STON/02. 3101290	7.9250	
## 818	male	31.00	1	1	S.C./PARIS 2079	37.0042	
## 819	male	43.00	0	0	C 7075	6.4500	
## 820	male	10.00	3	2	347088	27.9000	
## 821	female	52.00	1	1	12749	93.5000	B69
## 822	male	27.00	0	0	315098	8.6625	
## 823	male	38.00	0	0	19972	0.0000	
## 824	female	27.00	0	1	392096	12.4750	E121
## 825	male	2.00	4	1	3101295	39.6875	
## 826	male	NA	0	0	368323	6.9500	
## 827	male	NA	0	0	1601	56.4958	
## 828	male	1.00	0	2	S.C./PARIS 2079	37.0042	
## 829	male	NA	0	0	367228	7.7500	
## 830	female	62.00	0	0	113572	80.0000	B28
## 831	female	15.00	1	0	2659	14.4542	
## 832	male	0.83	1	1	29106	18.7500	
## 833	male	NA	0	0	2671	7.2292	
## 834	male	23.00	0	0	347468	7.8542	
## 835	male	18.00	0	0	2223	8.3000	
## 836	female	39.00	1	1	PC 17756	83.1583	E49
## 837	male	21.00	0	0	315097	8.6625	
## 838	male	NA	0	0	392092	8.0500	
## 839	male	32.00	0	0	1601	56.4958	
## 840	male	NA	0	0	11774	29.7000	C47
## 841	male	20.00	0	0	SOTON/02 3101287	7.9250	
## 842	male	16.00	0	0	S.O./P.P. 3	10.5000	
## 843	female	30.00	0	0	113798	31.0000	
## 844	male	34.50	0	0	2683	6.4375	
## 845	male	17.00	0	0	315090	8.6625	
## 846	male	42.00	0	0	C.A. 5547	7.5500	
## 847	male	NA	8	2	CA. 2343	69.5500	
## 848	male	35.00	0	0	349213	7.8958	
## 849	male	28.00	0	1	248727	33.0000	
## 850	female	NA	1	0	17453	89.1042	C92
## 851	male	4.00	4	2	347082	31.2750	
## 852	male	74.00	0	0	347060	7.7750	
## 853	female	9.00	1	1	2678	15.2458	
## 854	female	16.00	0	1	PC 17592	39.4000	D28
## 855	female	44.00	1	0	244252	26.0000	
## 856	female	18.00	0	1	392091	9.3500	
## 857	female	45.00	1	1	36928	164.8667	
## 858	male	51.00	0	0	113055	26.5500	E17
## 859	female	24.00	0	3	2666	19.2583	
## 860	male	NA	0	0	2629	7.2292	
## 861	male	41.00	2	0	350026	14.1083	
## 862	male	21.00	1	0	28134	11.5000	
## 863	female	48.00	0	0	17466	25.9292	D17
## 864	female	NA	8	2	CA. 2343	69.5500	
## 865	male	24.00	0	0	233866	13.0000	
## 866	female	42.00	0	0	236852	13.0000	
## 867	female	27.00	1	0	SC/PARIS 2149	13.8583	

## 868	male	31.00	0	0	PC 17590	50.4958	A24
## 869	male	NA	0	0	345777	9.5000	
## 870	male	4.00	1	1	347742	11.1333	
## 871	male	26.00	0	0	349248	7.8958	
## 872	female	47.00	1	1	11751	52.5542	D35
## 873	male	33.00	0	0	695	5.0000	B51 B53 B55
## 874	male	47.00	0	0	345765	9.0000	
## 875	female	28.00	1	0	P/PP 3381	24.0000	
## 876	female	15.00	0	0	2667	7.2250	
## 877	male	20.00	0	0	7534	9.8458	
## 878	male	19.00	0	0	349212	7.8958	
## 879	male	NA	0	0	349217	7.8958	
## 880	female	56.00	0	1	11767	83.1583	C50
## 881	female	25.00	0	1	230433	26.0000	
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## 883	female	22.00	0	0	7552	10.5167	
## 884	male	28.00	0	0	C.A./SOTON 34068	10.5000	
## 885	male	25.00	0	0	SOTON/OQ 392076	7.0500	
## 886	female	39.00	0	5	382652	29.1250	
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## 888	female	19.00	0	0	112053	30.0000	B42
## 889	female	NA	1	2	W./C. 6607	23.4500	
## 890	male	26.00	0	0	111369	30.0000	C148
## 891	male	32.00	0	0	370376	7.7500	
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## 727	S
## 728	Q
## 729	S
## 730	S
## 731	S
## 732	C
## 733	S
## 734	S
## 735	S
## 736	S
## 737	S
## 738	C
## 739	S
## 740	S

## 741	S
## 742	S
## 743	C
## 744	S
## 745	S
## 746	S
## 747	S
## 748	S
## 749	S
## 750	Q
## 751	S
## 752	S
## 753	S
## 754	S
## 755	S
## 756	S
## 757	S
## 758	S
## 759	S
## 760	S
## 761	S
## 762	S
## 763	C
## 764	S
## 765	S
## 766	S
## 767	C
## 768	Q
## 769	Q
## 770	S
## 771	S
## 772	S
## 773	S
## 774	C
## 775	S
## 776	S
## 777	Q
## 778	S
## 779	Q
## 780	S
## 781	C
## 782	S
## 783	S
## 784	S
## 785	S
## 786	S
## 787	S
## 788	Q
## 789	S
## 790	C
## 791	Q

## 792	S
## 793	S
## 794	C
## 795	S
## 796	S
## 797	S
## 798	S
## 799	C
## 800	S
## 801	S
## 802	S
## 803	S
## 804	C
## 805	S
## 806	S
## 807	S
## 808	S
## 809	S
## 810	S
## 811	S
## 812	S
## 813	S
## 814	S
## 815	S
## 816	S
## 817	S
## 818	C
## 819	S
## 820	S
## 821	S
## 822	S
## 823	S
## 824	S
## 825	S
## 826	Q
## 827	S
## 828	C
## 829	Q
## 830	
## 831	C
## 832	S
## 833	C
## 834	S
## 835	S
## 836	C
## 837	S
## 838	S
## 839	S
## 840	C
## 841	S
## 842	S

## 843	C
## 844	C
## 845	S
## 846	S
## 847	S
## 848	C
## 849	S
## 850	C
## 851	S
## 852	S
## 853	C
## 854	S
## 855	S
## 856	S
## 857	S
## 858	S
## 859	C
## 860	C
## 861	S
## 862	S
## 863	S
## 864	S
## 865	S
## 866	S
## 867	C
## 868	S
## 869	S
## 870	S
## 871	S
## 872	S
## 873	S
## 874	S
## 875	C
## 876	C
## 877	S
## 878	S
## 879	S
## 880	C
## 881	S
## 882	S
## 883	S
## 884	S
## 885	S
## 886	Q
## 887	S
## 888	S
## 889	S
## 890	C
## 891	Q


```
summary(titanic_df)
```

```
## PassengerId      Survived      Pclass      Name
## Min.   :  1.0   Min.   :0.0000   Min.   :1.000   Length:891
## 1st Qu.:223.5   1st Qu.:0.0000   1st Qu.:2.000   Class :character
## Median :446.0   Median :0.0000   Median :3.000   Mode  :character
## Mean   :446.0   Mean   :0.3838   Mean    :2.309
## 3rd Qu.:668.5   3rd Qu.:1.0000   3rd Qu.:3.000
## Max.   :891.0   Max.   :1.0000   Max.    :3.000
##
##      Sex      Age      SibSp      Parch
## Length:891   Min.    : 0.42   Min.    :0.000   Min.    :0.0000
## Class :character 1st Qu.:20.12   1st Qu.:0.000   1st Qu.:0.0000
## Mode  :character Median :28.00   Median :0.000   Median :0.0000
##                      Mean  :29.70   Mean  :0.523   Mean  :0.3816
##                      3rd Qu.:38.00   3rd Qu.:1.000   3rd Qu.:0.0000
##                      Max.   :80.00   Max.   :8.000   Max.   :6.0000
##                      NA's   :177
##      Ticket      Fare      Cabin      Embarked
## Length:891   Min.    : 0.00   Length:891   Length:891
## Class :character 1st Qu.: 7.91   Class :character  Class :character
## Mode  :character Median :14.45   Mode  :character  Mode  :character
##                      Mean   :32.20
##                      3rd Qu.:31.00
##                      Max.   :512.33
##
```

```
head(titanic_df)
```

```
## PassengerId Survived Pclass
## 1      1      0      3
## 2      2      1      1
## 3      3      1      3
## 4      4      1      1
## 5      5      0      3
## 6      6      0      3
##
##                               Name      Sex Age SibSp Parch
## 1                               Braund, Mr. Owen Harris   male  22      1      0
## 2 Cumings, Mrs. John Bradley (Florence Briggs Thayer) female  38      1      0
## 3                               Heikkinen, Miss. Laina female  26      0      0
## 4 Futrelle, Mrs. Jacques Heath (Lily May Peel) female  35      1      0
## 5                               Allen, Mr. William Henry   male  35      0      0
## 6                               Moran, Mr. James         male   NA      0      0
##
##      Ticket      Fare Cabin Embarked
## 1      A/5 21171   7.2500      S
## 2      PC 17599  71.2833   C85      C
## 3 STON/O2. 3101282   7.9250      S
## 4      113803  53.1000  C123      S
## 5      373450   8.0500      S
## 6      330877   8.4583      Q
```

```
tail(titanic_df)
```

```
## PassengerId Survived Pclass                               Name      Sex
## 886      886      0      3      Rice, Mrs. William (Margaret Norton) female
## 887      887      0      2                               Montvila, Rev. Juozas   male
## 888      888      1      1                               Graham, Miss. Margaret Edith female
## 889      889      0      3 Johnston, Miss. Catherine Helen "Carrie" female
## 890      890      1      1                               Behr, Mr. Karl Howell   male
## 891      891      0      3                               Dooley, Mr. Patrick   male
##
##      Age SibSp Parch      Ticket      Fare Cabin Embarked
## 886  39      0      5      382652  29.125      Q
## 887  27      0      0      211536  13.000      S
## 888  19      0      0      112053  30.000   B42      S
## 889  NA      1      2 W./C. 6607  23.450      S
## 890  26      0      0      111369  30.000  C148      C
## 891  32      0      0      370376   7.750      Q
```

```
#2. Data Preparation and data cleaning of titanic dataset
str(titanic_df)
```

```
## 'data.frame':   891 obs. of  12 variables:
## $ PassengerId: int  1 2 3 4 5 6 7 8 9 10 ...
## $ Survived   : int  0 1 1 1 0 0 0 0 1 1 ...
## $ Pclass     : int  3 1 3 1 3 3 1 3 3 2 ...
## $ Name       : chr  "Braund, Mr. Owen Harris" "Cumings, Mrs. John Bradley (Florence Briggs Thayer)" "Heikkinen, Miss. Laina" "Futrelle, Mrs. Jacques Heath (Lily May Peel)" ...
## $ Sex        : chr  "male" "female" "female" "female" ...
## $ Age        : num  22 38 26 35 35 NA 54 2 27 14 ...
## $ SibSp      : int  1 1 0 1 0 0 0 3 0 1 ...
## $ Parch      : int  0 0 0 0 0 0 0 1 2 0 ...
## $ Ticket     : chr  "A/5 21171" "PC 17599" "STON/O2. 3101282" "113803" ...
## $ Fare       : num  7.25 71.28 7.92 53.1 8.05 ...
## $ Cabin      : chr  "" "C85" "" "C123" ...
## $ Embarked   : chr  "S" "C" "S" "S" ...
```

```
sum(is.na(titanic_df))
```

```
## [1] 177
```

```
cat_table<-table(titanic_df$Age,titanic_df$Survived)
cat_table
```

```
##
##      0  1
##  0.42 0  1
##  0.67 0  1
##  0.75 0  2
##  0.83 0  2
##  0.92 0  1
##   1    2  5
##   2    7  3
##   3    1  5
##   4    3  7
##   5    0  4
##   6    1  2
##   7    2  1
##   8    2  2
##   9    6  2
##  10    2  0
##  11    3  1
##  12    0  1
##  13    0  2
##  14    3  3
##  14.5  1  0
##  15    1  4
##  16   11  6
##  17    7  6
##  18   17  9
##  19   16  9
##  20   12  3
##  20.5  1  0
##  21   19  5
##  22   16 11
##  23   10  5
##  23.5  1  0
##  24   15 15
##  24.5  1  0
##  25   17  6
##  26   12  6
##  27    7 11
##  28   18  7
##  28.5  2  0
##  29   12  8
##  30   15 10
##  30.5  2  0
##  31    9  8
##  32    9  9
##  32.5  1  1
##  33    9  6
##  34    9  6
##  34.5  1  0
##  35    7 11
##  36   11 11
```

```
## 36.5 1 0
## 37 5 1
## 38 6 5
## 39 9 5
## 40 7 6
## 40.5 2 0
## 41 4 2
## 42 7 6
## 43 4 1
## 44 6 3
## 45 7 5
## 45.5 2 0
## 46 3 0
## 47 8 1
## 48 3 6
## 49 2 4
## 50 5 5
## 51 5 2
## 52 3 3
## 53 0 1
## 54 5 3
## 55 1 1
## 55.5 1 0
## 56 2 2
## 57 2 0
## 58 2 3
## 59 2 0
## 60 2 2
## 61 3 0
## 62 2 2
## 63 0 2
## 64 2 0
## 65 3 0
## 66 1 0
## 70 2 0
## 70.5 1 0
## 71 2 0
## 74 1 0
## 80 0 1
```

```
num_table<-table(titanic_df$Age,titanic_df$Parch)
num_table
```

```
##
##      0  1  2  3  4  5  6
##  0.42 0  1  0  0  0  0
##  0.67 0  1  0  0  0  0
##  0.75 0  2  0  0  0  0
##  0.83 0  1  1  0  0  0
##  0.92 0  0  1  0  0  0
##   1   0  3  4  0  0  0
##   2   0  7  3  0  0  0
##   3   0  4  2  0  0  0
##   4   0  6  4  0  0  0
##   5   1  1  2  0  0  0
##   6   0  2  1  0  0  0
##   7   0  2  1  0  0  0
##   8   0  3  1  0  0  0
##   9   0  2  6  0  0  0
##  10   0  0  2  0  0  0
##  11   1  0  3  0  0  0
##  12   1  0  0  0  0  0
##  13   1  1  0  0  0  0
##  14   3  1  2  0  0  0
##  14.5 1  0  0  0  0  0
##  15   3  2  0  0  0  0
##  16  11  4  1  1  0  0
##  17  10  1  2  0  0  0
##  18  18  5  3  0  0  0
##  19  22  1  2  0  0  0
##  20  14  1  0  0  0  0
##  20.5 1  0  0  0  0  0
##  21  21  1  2  0  0  0
##  22  23  2  2  0  0  0
##  23  12  2  1  0  0  0
##  23.5 1  0  0  0  0  0
##  24  22  2  4  2  0  0
##  24.5 1  0  0  0  0  0
##  25  19  2  2  0  0  0
##  26  16  1  1  0  0  0
##  27  15  1  2  0  0  0
##  28  23  2  0  0  0  0
##  28.5 2  0  0  0  0  0
##  29  17  1  1  0  1  0
##  30  24  1  0  0  0  0
##  30.5 2  0  0  0  0  0
##  31  12  4  1  0  0  0
##  32  17  1  0  0  0  0
##  32.5 2  0  0  0  0  0
##  33  12  1  2  0  0  0
##  34  12  3  0  0  0  0
##  34.5 1  0  0  0  0  0
##  35  17  1  0  0  0  0
##  36  16  2  4  0  0  0
```

```
## 36.5 0 0 1 0 0 0 0
## 37 4 2 0 0 0 0 0
## 38 9 1 0 0 0 1 0
## 39 8 3 0 0 0 3 0
## 40 9 3 0 0 1 0 0
## 40.5 1 0 1 0 0 0 0
## 41 3 1 1 0 0 1 0
## 42 12 1 0 0 0 0 0
## 43 2 2 0 0 0 0 1
## 44 7 2 0 0 0 0 0
## 45 8 3 0 0 1 0 0
## 45.5 2 0 0 0 0 0 0
## 46 3 0 0 0 0 0 0
## 47 8 1 0 0 0 0 0
## 48 7 0 1 1 0 0 0
## 49 5 1 0 0 0 0 0
## 50 8 2 0 0 0 0 0
## 51 6 1 0 0 0 0 0
## 52 4 2 0 0 0 0 0
## 53 1 0 0 0 0 0 0
## 54 6 1 0 1 0 0 0
## 55 2 0 0 0 0 0 0
## 55.5 1 0 0 0 0 0 0
## 56 3 1 0 0 0 0 0
## 57 2 0 0 0 0 0 0
## 58 3 1 1 0 0 0 0
## 59 2 0 0 0 0 0 0
## 60 2 2 0 0 0 0 0
## 61 3 0 0 0 0 0 0
## 62 4 0 0 0 0 0 0
## 63 2 0 0 0 0 0 0
## 64 1 0 0 0 1 0 0
## 65 2 1 0 0 0 0 0
## 66 1 0 0 0 0 0 0
## 70 1 1 0 0 0 0 0
## 70.5 1 0 0 0 0 0 0
## 71 2 0 0 0 0 0 0
## 74 1 0 0 0 0 0 0
## 80 1 0 0 0 0 0 0
```

```
mix_table<-table(titanic_df$Survived,titanic_df$Parch)
mix_table
```

```
##
##      0    1    2    3    4    5    6
## 0 445  53  40    2    4    4    1
## 1 233  65  40    3    0    1    0
```

```
titanic_df$Class<-as.factor(titanic_df$SibSp)
titanic_df$Sex<-as.factor(titanic_df$Sex)
titanic_df$Survived<-as.factor(titanic_df$Survived)
titanic_df$Class
```

```
## [1] 1 1 0 1 0 0 0 3 0 1 1 0 0 1 0 0 4 0 1 0 0 0 0 0 3 1 0 3 0 0 0 1 0 0 1 1 0
## [38] 0 2 1 1 1 0 1 0 0 1 0 2 1 4 0 1 1 0 0 0 0 1 5 0 0 1 3 0 1 0 0 4 2 0 5 0 1
## [75] 0 0 0 0 0 0 0 0 0 0 0 3 1 0 3 0 0 0 1 1 0 0 0 0 0 1 0 0 0 0 2 0 0 0 0 1 0
## [112] 1 0 1 0 0 0 1 0 4 2 0 1 0 0 1 0 0 1 0 0 0 1 1 0 0 0 1 0 0 0 0 1 0 0 1 0 2
## [149] 0 0 0 1 0 0 0 0 0 0 0 8 0 0 0 0 4 0 0 1 0 0 0 4 1 0 0 1 3 0 0 0 8 0 4 2 0
## [186] 0 1 0 1 0 0 0 1 1 0 0 0 0 0 0 0 8 0 0 0 0 1 0 0 0 0 0 0 0 0 1 1 0 1 0 0 0 0
## [223] 0 0 1 0 0 0 0 3 1 0 0 4 0 0 1 0 0 0 1 1 0 0 0 2 0 0 1 1 0 1 0 1 0 0 0 0 0
## [260] 0 0 4 1 0 0 0 4 1 0 0 0 0 0 0 0 1 0 0 4 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
## [297] 0 1 0 0 0 2 0 0 0 1 0 1 1 0 0 2 1 0 1 0 1 0 0 1 0 0 0 1 8 0 0 0 1 0 2 0 0
## [334] 2 1 0 1 0 0 0 1 3 0 0 0 0 0 1 1 0 0 0 1 1 0 0 0 0 0 0 1 1 0 0 1 0 1 0 0 0
## [371] 1 1 0 0 3 1 0 0 0 0 0 0 0 0 1 0 0 5 0 0 0 1 0 2 1 0 0 0 0 0 0 0 0 1 1 0 1 0
## [408] 1 0 3 0 0 1 0 0 0 1 0 0 0 0 0 0 1 1 0 1 0 0 0 0 1 1 0 1 1 2 2 1 0 1 0 1 0
## [445] 0 0 0 0 2 0 1 1 0 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 1 0 0 0 1 1 0 0 5
## [482] 0 0 0 1 3 1 0 0 1 1 0 0 0 0 0 1 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 0 0 0
## [519] 1 0 0 0 0 0 0 0 0 0 2 1 0 1 0 0 0 0 0 0 0 0 4 4 1 1 0 1 0 1 1 0 0 0 0 0
## [556] 0 1 0 1 1 0 0 0 0 0 2 0 0 0 0 0 2 0 0 0 0 0 1 1 0 1 1 0 0 0 0 0 1 0 0 0 1
## [593] 0 0 1 1 0 0 0 1 2 0 0 0 0 1 0 0 1 0 1 0 1 0 0 1 1 1 2 0 1 1 1 0 0 0 0 0 0
## [630] 0 0 0 0 0 3 0 0 1 0 1 0 0 3 0 2 1 0 0 0 0 0 0 0 0 0 2 0 1 0 0 2 0 0 0 1 2
## [667] 0 0 0 1 1 1 0 0 0 0 0 0 1 0 0 0 0 5 1 1 4 0 0 0 1 0 0 0 0 0 0 0 1 0 1 0 0
## [704] 0 1 0 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 1 0 0 1 0 3 0 1 1 0 0 0 0 0 0 1 0 0 0
## [741] 0 1 2 1 0 1 1 0 1 0 1 0 0 0 1 1 0 0 0 0 0 0 0 1 0 1 0 0 1 0 0 0 0 0 1 0 0
## [778] 0 0 0 0 1 0 1 0 0 0 4 1 0 0 0 8 0 0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 1 0 0 0 4
## [815] 0 0 0 1 0 3 1 0 0 0 4 0 0 0 0 0 1 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 8 0 0 1 4
## [852] 0 1 0 1 0 1 0 0 0 2 1 0 8 0 0 1 0 0 1 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
## [889] 1 0 0
## Levels: 0 1 2 3 4 5 8
```

```
titanic_df$Sex
```



```
## [1] male   female female female male   male   male   male   female female
## [11] female female male   male   female female male   male   female female
## [21] male   male   female male   female female male   male   female male
## [31] male   female female male   male   male   male   male   female female
## [41] female female male   female female male   male   female male   female
## [51] male   male   female female male   male   female male   female male
## [61] male   female male   male   male   male   female male   female male
## [71] male   female male   male   male   male   male   male   male   female
## [81] male   male   female male   female female male   male   female male
## [91] male   male   male   male   male   male   male   male   female male
## [101] female male   male   male   male   male   female male   male   female
## [111] male   female male   female female male   male   male   male   female
## [121] male   male   male   female male   male   male   male   female male
## [131] male   male   female female male   male   female male   male   male
## [141] female female female male   male   male   male   female male   male
## [151] male   female male   male   male   male   female male   male   male
## [161] male   female male   male   male   male   female female male   male
## [171] male   male   female male   male   male   male   female male   male
## [181] female male   male   male   female male   female male   male   male
## [191] female male   female male   female female male   male   female female
## [201] male   male   male   male   male   female male   male   female male
## [211] male   female male   male   male   female female male   female male
## [221] male   male   male   male   male   male   male   male   male   female
## [231] female male   male   female male   female male   female male   male
## [241] female female male   male   male   male   female female male   male
## [251] male   female male   male   female female female female female female
## [261] male   male   male   male   female male   male   male   female female
## [271] male   male   female male   female female female male   male   female
## [281] male   male   male   male   male   male   male   male   male   female
## [291] female female male   female male   male   male   female male   female
## [301] female male   male   female male   male   female female male   female
## [311] female female female male   male   female female male   female female
## [321] male   male   female female male   female male   female female female
## [331] female male   male   male   female male   male   female male   male
## [341] male   female male   male   male   female female female male   male
## [351] male   male   male   male   male   male   female female female female
## [361] male   male   female male   male   male   female female female female
## [371] male   male   male   male   female female female male   male   male
## [381] female female male   female male   male   male   female male   female
## [391] male   male   male   female female male   female male   male   female
## [401] male   male   female male   female male   male   male   male   female
## [411] male   male   female male   male   female female female male   female
## [421] male   male   male   female male   male   female female male   male
## [431] male   female female male   male   female female female male   male
## [441] female male   male   female male   male   female male   female male
## [451] male   male   male   male   male   male   male   female female male
## [461] male   male   male   male   male   male   male   male   male   female
## [471] male   male   female female female male   male   male   male   female
## [481] male   male   male   female male   female female male   male   male
## [491] male   male   male   male   male   male   female male   female male
## [501] male   female female female female male   female male   male   male
```

```
## [511] male   male   male   female male   male   female male   female male
## [521] female male   male   female male   male   female male   male   male
## [531] female male   male   female female female male   female male   female
## [541] female female female male   male   male   female male   male   male
## [551] male   male   male   male   female male   female male   female female
## [561] male   male   male   male   female male   male   female male   male
## [571] male   female male   female male   male   female female female male
## [581] female female male   male   male   female male   male   male   male
## [591] male   female male   female male   male   female male   male   male
## [601] female male   male   male   male   male   male   male   female female
## [611] female male   female male   male   female male   female female male
## [621] male   male   male   male   male   male   male   female male   male
## [631] male   male   male   male   female female male   male   female male
## [641] male   female female male   female male   male   male   male   female
## [651] male   female male   female female male   male   female male   male
## [661] male   male   male   male   male   male   male   male   male   female
## [671] female male   male   male   male   male   male   female female male
## [681] female male   male   male   male   male   male   male   male   female
## [691] male   female male   male   male   male   male   female male   male
## [701] female male   female male   male   male   female male   female male
## [711] female male   male   male   male   male   female female male   male
## [721] female male   male   male   male   male   female female male   female
## [731] female male   male   male   male   male   female male   male   male
## [741] male   male   female male   male   male   male   female male   male
## [751] female male   male   male   female male   male   male   male   female
## [761] male   male   male   female male   female male   female male   male
## [771] male   male   female male   female male   male   female male   female
## [781] female female male   male   male   male   female male   male   male
## [791] male   male   female male   male   male   female female male   female
## [801] male   female male   male   male   male   male   female male   female
## [811] male   male   male   female male   male   female male   male   male
## [821] female male   male   female male   male   male   male   male   female
## [831] female male   male   male   male   female male   male   male   male
## [841] male   male   female male   male   male   male   male   male   female
## [851] male   male   female female female female female male   female male
## [861] male   male   female female male   female female male   male   male
## [871] male   female male   male   female female male   male   male   female
## [881] female male   female male   male   female male   female female male
## [891] male
## Levels: female male
```

```
titanic_df$Survived
```

```
## [1] 0 1 1 1 0 0 0 0 1 1 1 1 0 0 0 1 0 1 0 1 0 1 1 1 0 1 0 0 1 0 0 1 1 0 0 0 1
## [38] 0 0 1 0 0 0 1 1 0 0 1 0 0 0 0 1 1 0 1 1 0 1 0 0 1 0 0 0 1 1 0 1 0 0 0 0 0
## [75] 1 0 0 0 1 1 0 1 1 0 1 1 0 0 1 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 1 1 0 1 0
## [112] 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1 1 0 0 0 0 1 0 0 1 0 0 0 0 1 1 0 0 0 1 0
## [149] 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 1 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 1 1
## [186] 0 1 1 0 0 1 0 1 1 1 1 0 0 1 0 0 0 0 0 1 0 0 1 1 1 0 1 0 0 0 1 1 0 1 0 1 0
## [223] 0 0 1 0 1 0 0 0 1 0 0 1 0 0 0 1 0 0 0 1 0 0 0 0 0 1 1 0 0 0 0 0 0 1 1 1 1
## [260] 1 0 1 0 0 0 0 0 1 1 1 0 1 1 0 1 1 0 0 0 1 0 0 0 1 0 0 1 0 1 1 1 1 0 0 0 0
## [297] 0 0 1 1 1 1 0 1 0 1 1 1 0 1 1 1 0 0 0 1 1 0 1 1 0 0 1 1 0 1 0 1 1 1 1 0 0
## [334] 0 1 0 0 1 1 0 1 1 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 1 1 1 1
## [371] 1 0 0 0 0 1 1 0 0 0 1 1 0 1 0 0 0 1 0 1 1 1 0 1 1 0 0 0 0 1 1 0 0 0 0 0 0
## [408] 1 0 0 0 0 1 0 1 0 1 1 0 0 0 0 0 0 0 0 1 1 0 1 1 1 1 0 0 1 0 1 0 0 1 0 0 1
## [445] 1 1 1 1 1 1 0 0 0 1 0 1 0 1 1 0 1 0 0 0 0 0 0 0 0 1 0 0 1 1 0 0 0 0 0 1 0
## [482] 0 0 1 1 0 1 0 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 1 1 0 1 1 0 1 1 0 0 1 0
## [519] 1 0 1 0 0 1 0 0 1 0 0 0 1 0 0 1 0 1 0 1 0 1 1 0 0 1 0 0 1 1 0 1 1 0 0 1 1
## [556] 0 1 0 1 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 0 0 1 1 0 1 1 1 0 0 0 1 0 1 0 0 0 1
## [593] 0 0 0 0 1 0 0 1 1 0 0 0 1 0 0 1 1 1 0 0 1 0 0 1 0 0 1 0 0 1 1 0 0 0 0 1 0
## [630] 0 1 0 1 0 0 1 0 0 0 0 0 1 0 1 1 1 0 1 0 1 0 1 0 1 0 0 0 0 0 0 1 0 0 0 1 0
## [667] 0 0 0 1 1 0 0 1 0 0 0 1 0 1 0 1 0 0 0 0 0 0 0 0 1 1 1 1 0 0 0 0 1 0 0 1 1 0
## [704] 0 0 0 1 1 1 1 1 0 1 0 0 0 1 1 0 0 1 0 0 0 1 0 1 1 0 0 1 0 0 0 0 0 0 1 0 0
## [741] 1 0 1 0 1 0 0 1 0 0 1 1 0 0 1 1 0 0 0 1 0 0 1 1 0 1 0 0 0 0 0 0 0 0 1 0 0
## [778] 1 0 1 1 1 0 0 0 0 1 0 1 0 0 0 0 0 0 0 0 1 1 0 0 0 1 1 1 1 0 0 0 0 1 0 0 0 0
## [815] 0 0 0 0 0 0 1 1 0 1 0 0 0 1 1 1 1 1 0 0 0 1 0 0 1 1 0 0 1 0 0 0 0 0 0 1 0
## [852] 0 0 1 0 1 1 1 1 0 0 0 1 0 0 1 1 0 0 1 0 1 0 0 1 1 0 0 0 1 1 0 0 0 0 0 0 1
## [889] 0 1 0
## Levels: 0 1
```

#3. Create a 2 way contingency table - all the possibility of Categorical-Categorical, numerical-numerical, Categorical-numerical variables. (table())

```
cat_cat_table<-table(titanic_df$Survived,titanic_df$Sex)
cat_cat_table
```

```
##
##      female male
## 0         81 468
## 1        233 109
```

```
summary(titanic_df$Parch)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
## 0.0000  0.0000  0.0000  0.3816  0.0000  6.0000
```

```
#cat_num_table<-aggregate(Pclass-Survived+Class,data=titanic_df,FUN=sum)
```

```
#cat_num_table
```

```
#4. Create a 3 way contingency table for the Q3.
```

```
way_table<-table(titanic_df$Survived,titanic_df$Sex,titanic_df$Age)
```

```
way_table
```

```
## , , = 0.42
##
##
##      female male
##    0      0      0
##    1      0      1
##
## , , = 0.67
##
##
##      female male
##    0      0      0
##    1      0      1
##
## , , = 0.75
##
##
##      female male
##    0      0      0
##    1      2      0
##
## , , = 0.83
##
##
##      female male
##    0      0      0
##    1      0      2
##
## , , = 0.92
##
##
##      female male
##    0      0      0
##    1      0      1
##
## , , = 1
##
##
##      female male
##    0      0      2
##    1      2      3
##
## , , = 2
##
##
##      female male
##    0      4      3
##    1      2      1
##
## , , = 3
##
```

```
##
##      female male
##    0      1    0
##    1      1    4
##
## , ,  = 4
##
##
##      female male
##    0      0    3
##    1      5    2
##
## , ,  = 5
##
##
##      female male
##    0      0    0
##    1      4    0
##
## , ,  = 6
##
##
##      female male
##    0      1    0
##    1      1    1
##
## , ,  = 7
##
##
##      female male
##    0      0    2
##    1      1    0
##
## , ,  = 8
##
##
##      female male
##    0      1    1
##    1      1    1
##
## , ,  = 9
##
##
##      female male
##    0      4    2
##    1      0    2
##
## , ,  = 10
##
##
##      female male
```

```
##      0      1      1
##      1      0      0
##
## , , = 11
##
##
##      female male
##      0      1      2
##      1      0      1
##
## , , = 12
##
##
##      female male
##      0      0      0
##      1      0      1
##
## , , = 13
##
##
##      female male
##      0      0      0
##      1      2      0
##
## , , = 14
##
##
##      female male
##      0      1      2
##      1      3      0
##
## , , = 14.5
##
##
##      female male
##      0      1      0
##      1      0      0
##
## , , = 15
##
##
##      female male
##      0      0      1
##      1      4      0
##
## , , = 16
##
##
##      female male
##      0      1     10
##      1      5      1
```

```
##
## , , = 17
##
##
##      female male
##    0      1     6
##    1      5     1
##
## , , = 18
##
##
##      female male
##    0      5    12
##    1      8     1
##
## , , = 19
##
##
##      female male
##    0      0    16
##    1      7     2
##
## , , = 20
##
##
##      female male
##    0      2    10
##    1      0     3
##
## , , = 20.5
##
##
##      female male
##    0      0     1
##    1      0     0
##
## , , = 21
##
##
##      female male
##    0      3    16
##    1      4     1
##
## , , = 22
##
##
##      female male
##    0      2    14
##    1     10     1
##
## , , = 23
```



```
##
##
##      female male
##      0      1      9
##      1      4      1
##
## , , = 23.5
##
##
##      female male
##      0      0      1
##      1      0      0
##
## , , = 24
##
##
##      female male
##      0      2     13
##      1     14      1
##
## , , = 24.5
##
##
##      female male
##      0      0      1
##      1      0      0
##
## , , = 25
##
##
##      female male
##      0      3     14
##      1      2      4
##
## , , = 26
##
##
##      female male
##      0      2     10
##      1      3      3
##
## , , = 27
##
##
##      female male
##      0      1      6
##      1      5      6
##
## , , = 28
##
##
```

```
##      female male
##    0        2   16
##    1        5    2
##
## , ,  = 28.5
##
##
##      female male
##    0         0    2
##    1         0    0
##
## , ,  = 29
##
##
##      female male
##    0         2   10
##    1         5    3
##
## , ,  = 30
##
##
##      female male
##    0         2   13
##    1         9    1
##
## , ,  = 30.5
##
##
##      female male
##    0         1    1
##    1         0    0
##
## , ,  = 31
##
##
##      female male
##    0         2    7
##    1         5    3
##
## , ,  = 32
##
##
##      female male
##    0         1    8
##    1         2    7
##
## , ,  = 32.5
##
##
##      female male
##    0         0    1
```

```
##      1      1      0
##
## , ,  = 33
##
##
##      female male
##      0      0      9
##      1      6      0
##
## , ,  = 34
##
##
##      female male
##      0      0      9
##      1      4      2
##
## , ,  = 34.5
##
##
##      female male
##      0      0      1
##      1      0      0
##
## , ,  = 35
##
##
##      female male
##      0      0      7
##      1      8      3
##
## , ,  = 36
##
##
##      female male
##      0      0     11
##      1      7      4
##
## , ,  = 36.5
##
##
##      female male
##      0      0      1
##      1      0      0
##
## , ,  = 37
##
##
##      female male
##      0      1      4
##      1      0      1
##
```

```
## , , = 38
##
##
##      female male
##      0      1      5
##      1      4      1
##
## , , = 39
##
##
##      female male
##      0      2      7
##      1      4      1
##
## , , = 40
##
##
##      female male
##      0      1      6
##      1      5      1
##
## , , = 40.5
##
##
##      female male
##      0      0      2
##      1      0      0
##
## , , = 41
##
##
##      female male
##      0      2      2
##      1      2      0
##
## , , = 42
##
##
##      female male
##      0      0      7
##      1      3      3
##
## , , = 43
##
##
##      female male
##      0      1      3
##      1      1      0
##
## , , = 44
##
```

```
##
##      female male
##    0      1    5
##    1      2    1
##
## , ,  = 45
##
##
##      female male
##    0      3    4
##    1      3    2
##
## , ,  = 45.5
##
##
##      female male
##    0      0    2
##    1      0    0
##
## , ,  = 46
##
##
##      female male
##    0      0    3
##    1      0    0
##
## , ,  = 47
##
##
##      female male
##    0      1    7
##    1      1    0
##
## , ,  = 48
##
##
##      female male
##    0      1    2
##    1      3    3
##
## , ,  = 49
##
##
##      female male
##    0      0    2
##    1      2    2
##
## , ,  = 50
##
##
##      female male
```

```
##      0      1      4
##      1      4      1
##
## , , = 51
##
##
##      female male
##      0      0      5
##      1      1      1
##
## , , = 52
##
##
##      female male
##      0      0      3
##      1      2      1
##
## , , = 53
##
##
##      female male
##      0      0      0
##      1      1      0
##
## , , = 54
##
##
##      female male
##      0      0      5
##      1      3      0
##
## , , = 55
##
##
##      female male
##      0      0      1
##      1      1      0
##
## , , = 55.5
##
##
##      female male
##      0      0      1
##      1      0      0
##
## , , = 56
##
##
##      female male
##      0      0      2
##      1      1      1
```

```
##
## , , = 57
##
##
##      female male
##    0      1      1
##    1      0      0
##
## , , = 58
##
##
##      female male
##    0      0      2
##    1      3      0
##
## , , = 59
##
##
##      female male
##    0      0      2
##    1      0      0
##
## , , = 60
##
##
##      female male
##    0      0      2
##    1      1      1
##
## , , = 61
##
##
##      female male
##    0      0      3
##    1      0      0
##
## , , = 62
##
##
##      female male
##    0      0      2
##    1      1      1
##
## , , = 63
##
##
##      female male
##    0      0      0
##    1      2      0
##
## , , = 64
```

```
##
##
##      female male
##      0         0   2
##      1         0   0
##
## , , = 65
##
##
##      female male
##      0         0   3
##      1         0   0
##
## , , = 66
##
##
##      female male
##      0         0   1
##      1         0   0
##
## , , = 70
##
##
##      female male
##      0         0   2
##      1         0   0
##
## , , = 70.5
##
##
##      female male
##      0         0   1
##      1         0   0
##
## , , = 71
##
##
##      female male
##      0         0   2
##      1         0   0
##
## , , = 74
##
##
##      female male
##      0         0   1
##      1         0   0
##
## , , = 80
##
##
```



```
##      female male
##    0      0    0
##    1      0    1
```

#5. For Q3 any one contingency table, apply row profile dataset, column profile dataset, relative frequency dataset, Chi-square dataset.

```
row_profile<-prop.table(cat_cat_table,1)
row_profile
```

```
##
##      female      male
##    0 0.1475410 0.8524590
##    1 0.6812865 0.3187135
```

```
column_profile<-prop.table(cat_cat_table,2)
column_profile
```

```
##
##      female      male
##    0 0.2579618 0.8110919
##    1 0.7420382 0.1889081
```

```
relative_freq<-prop.table(cat_cat_table)
relative_freq
```

```
##
##      female      male
##    0 0.09090909 0.52525253
##    1 0.26150393 0.12233446
```

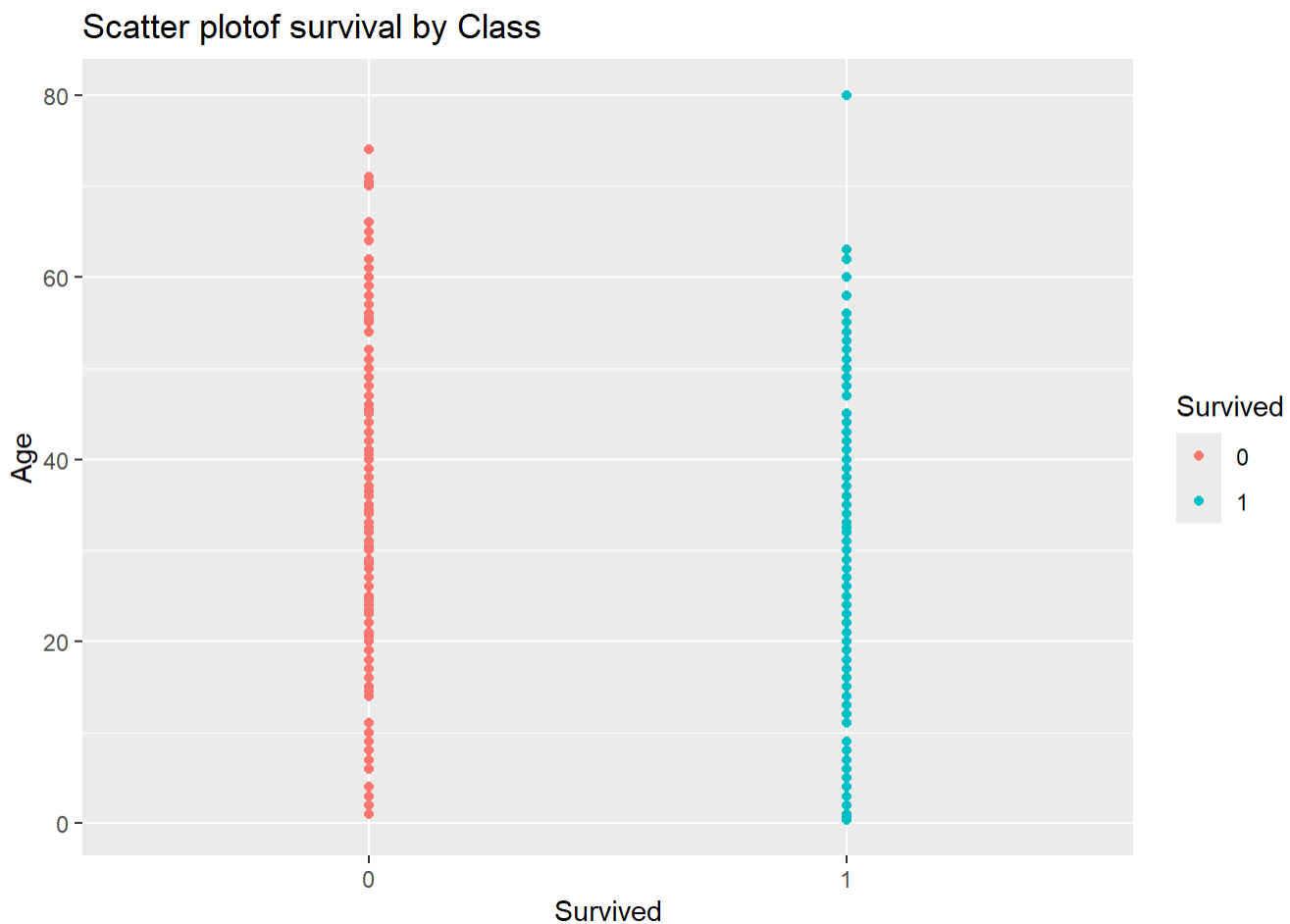
```
chisqr<-chisq.test(cat_cat_table)
chisqr
```

```
##
## Pearson's Chi-squared test with Yates' continuity correction
##
## data:  cat_cat_table
## X-squared = 260.72, df = 1, p-value < 2.2e-16
```

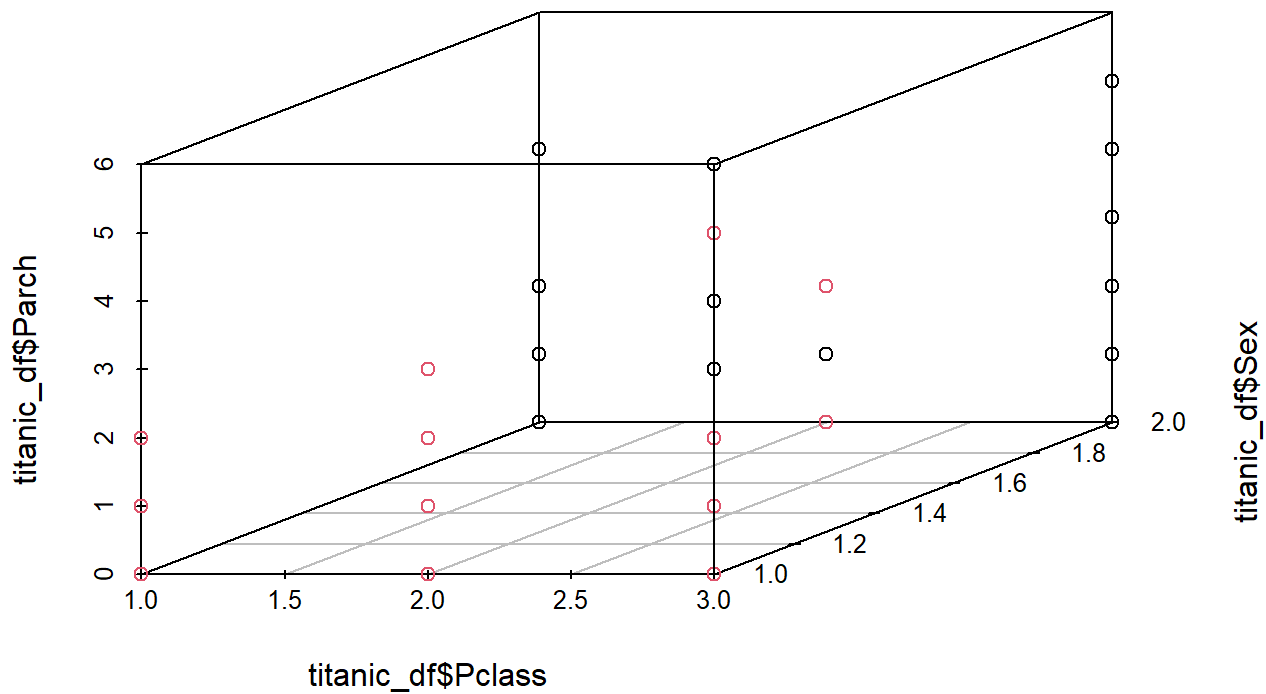
#6. Display the scatter plot using ggplot.

```
library(ggplot2)
ggplot(titanic_df,aes(x=Survived,y=Age,color=Survived))+geom_point()+labs(title = "Scatter plot of survival by Class",x="Survived",y="Age")
```

```
## Warning: Removed 177 rows containing missing values or values outside the scale range  
## (`geom_point()`).
```



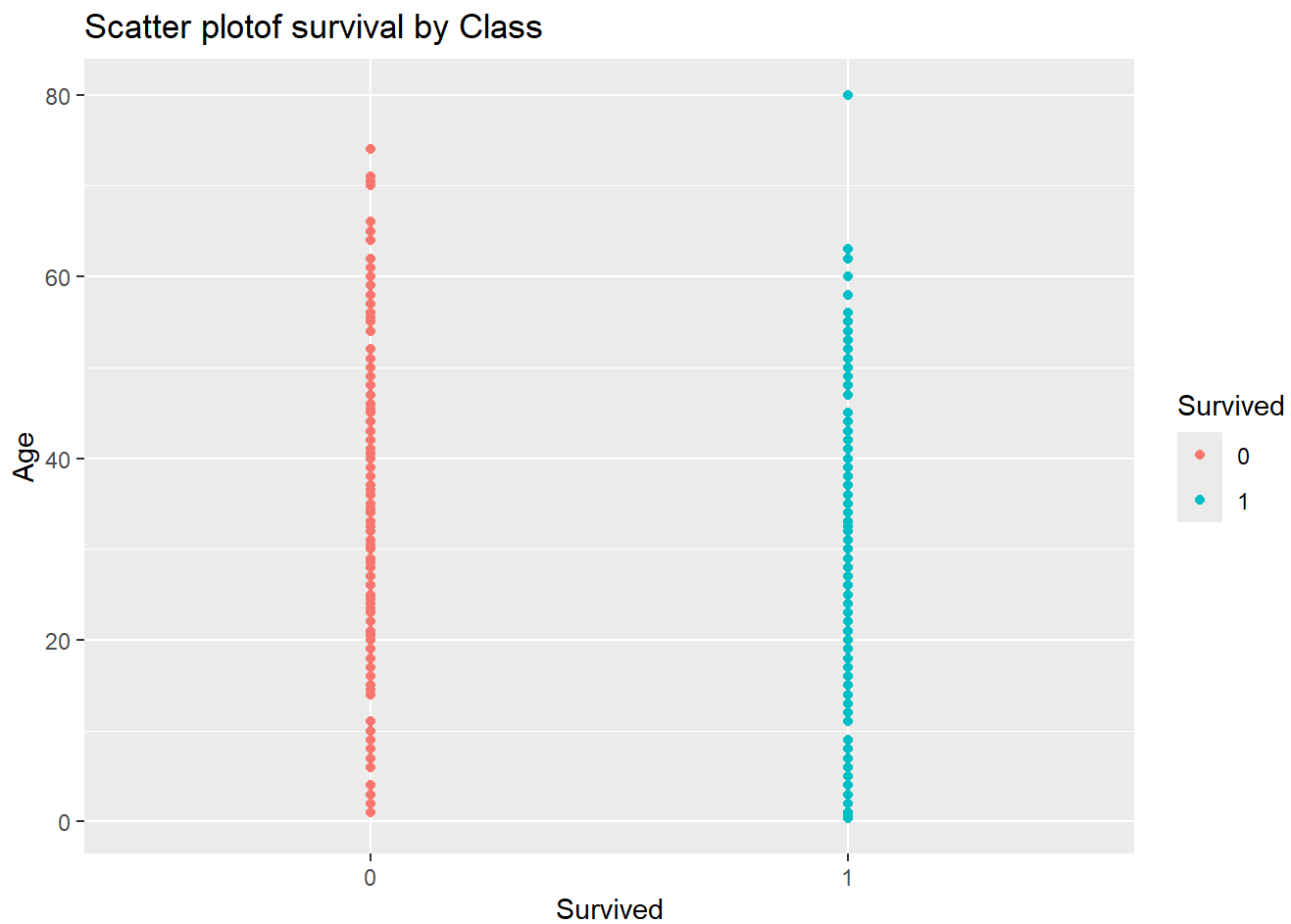
```
#7. Display the scatter plot for 3 variables using ggplot. (Load the library 'scatterplot3d')  
library(scatterplot3d)  
scatterplot3d(titanic_df$Pclass,titanic_df$Sex,titanic_df$Parch,color = as.numeric((titanic_d  
f$Survived),xlab="class",ylab="Sex",zlab="Frequency",main="Scatterplot3d",pch=16,type="h"))  
#8. For Q3, apply the possibility of changing color, shape, add bars (type='h') horizontal.  
scatterplot3d(titanic_df$Pclass,titanic_df$Sex,titanic_df$Parch,color = as.numeric((titanic_d  
f$Survived),xlab="class",ylab="Sex",zlab="Frequency",main="Scatterplot3d",pch=16,type="h"))
```



#9. Display 3D barplot

```
ggplot(titanic_df, aes(x=Survived, y=Age, color=Survived)) + geom_point() + labs(title = "Scatter plot of survival by Class", x="Survived", y="Age")
```

```
## Warning: Removed 177 rows containing missing values or values outside the scale range  
## (`geom_point()`).
```



#10. Display 2D boxplot (one variable as Categorical)

```
ggplot(titanic_df, aes(x=Pclass, y=Sex, fill=Survived)) + geom_boxplot() + labs(title = "Boxplot of survival by class", x = "Pclass", y = "Parch")
```

