

Privacy Preserving Data Publishing

Project Report

This project was developed using the Python programming language. The class Ppdp serves as the entry point of the project and requires a configuration object to be injected into it to populate the appropriate data. After loading data from their respective CSV files, the script transforms them into NumPy dataframes.

It then creates a taxonomy tree with two levels of generalization for each field requiring generalization, implementing different generalization logic depending on the datatype of each field.

Subsequently, the script utilizes the taxonomy tree to perform the generalization logic one level at a time, starting from the root of each generalization branch, which is represented by the 'any' value.

It calculates various generalization metrics, such as k-Anonymity, I-Diversity, Entropy I-Diversity, and Information Loss. Additionally, the script evaluates the likelihood of identifying individuals with known field values as having a specific disease and assesses the certainty of diagnosing someone's disease by cross-referencing both lists.

Finally, the script generates a PDF report that includes all computed data.

Possibilities Report

For someone with known values what is the possibility of having a specific disease?

Known values:

Sex	Race	Age
male	White: British	70

The possibilities of someone with the known values to have a specific disease are as follows:

Disease	Possibility
Arthropathies	25.0 %
Other forms of heart disease	15.625 %
Ischaemic heart diseases	12.5 %
Influenza & pneumonia	9.375 %
Diseases of oesophagus, stomach & duodenum	6.25 %
Cerebrovascular diseases	3.125 %
Chronic lower respiratory diseases	3.125 %
Disorders of lens (including cataracts)	3.125 %
Dorsopathies	3.125 %
In situ & benign neoplasms and others of uncertainty	3.125 %
Malignant neoplasm of digestive organs	3.125 %
Malignant neoplasms of lymphoid, haematopoietic & rel. tiss.	3.125 %
Malignant neoplsm. of thyroid and oth. endo. Glands etc	3.125 %
Other diseases of intestines	3.125 %
Symptoms & signs inv. the digestive system & abdomen	3.125 %

Is there someone on the citizens table that we can be certain of their disease?

After querying the hospital able for each citizen the ones that returned only one result are as follows:

Name	Disease
Ada Orozco	Arthropathies
Adam Thomas	Diseases of oesophagus, stomach & duodenum
Adrian Testerman	Symptoms & signs inv. the digestive system & abdomen
Agnes Rankin	Diseases of oral cavity, salivary glands & jaws
Agnes Turner	Symptoms & signs inv. the digestive system & abdomen
Agnes Vann	Symptoms & signs inv. the digestive system & abdomen
Albert Newsome	Health services in circumstances related to reproduction
Alex Vargas	Health services in circumstances related to reproduction
Alexis Machado	Symptoms & signs inv. the digestive system & abdomen
Alfred McClintock	Arthropathies
Alfredo Cordova	Malignant neoplasms of lymphoid, haematopoietic & rel. tiss.
Alice McClellan	Symptoms & signs inv. the digestive system & abdomen
Alisha Dieball	Other diseases of intestines
Alison Hairston	Symptoms & signs inv. the digestive system & abdomen
Alta Childress	Symptoms & signs inv. the digestive system & abdomen
Alvin Perry	Symptoms & signs inv. the digestive system & abdomen
Alvin Worley	Ischaemic heart diseases
Amber Campbell	Other forms of heart disease
Amber Conner	Diseases of oesophagus, stomach & duodenum
Amber Oconner	Malignant neoplasm of digestive organs
Amparo Seaman	Symptoms & signs inv. the digestive system & abdomen
Anastacia Glowacki	Symptoms & signs inv. the digestive system & abdomen
Andrea Mayoka	Malignant neoplasms of lymphoid, haematopoietic & rel. tiss.
Andrew Andrews	Health services in circumstances related to reproduction
Andrew Prichard	Arthropathies
Anette Rivera	Diseases of oral cavity, salivary glands & jaws
Angel Frank	Arthropathies
Angel Holbach	Health services in circumstances related to reproduction
Angel Scott	Other diseases of intestines
Angela Johns	Other disorders of the eye etc
Angela Stephens	Malignant neoplasm of digestive organs
Anita Ragin	Malignant neoplasm of digestive organs
Ann Bibb	Diseases of oral cavity, salivary glands & jaws
Anna Adair	Diseases of oesophagus, stomach & duodenum
Anna Cox	Arthropathies
Anna Gardiner	Symptoms & signs inv. the digestive system & abdomen
Anthony Fuente	Symptoms & signs inv. the digestive system & abdomen
Anthony Rankin	Symptoms & signs inv. the digestive system & abdomen

Anthony Treadway	Diseases of oral cavity, salivary glands & jaws
Antoine Esposito	Symptoms & signs inv. the digestive system & abdomen
Antoinette Dalton	Symptoms & signs inv. the digestive system & abdomen
Antonio Beavers	Other infections and disorders of the skin
Antonio Langevin	Symptoms & signs inv. the digestive system & abdomen
Antonio Thomas	Symptoms & signs inv. the digestive system & abdomen
April Koonce	Arthropathies
Apryl Easterling	Diseases of oral cavity, salivary glands & jaws
Audrey Schulman	Ischaemic heart diseases
Austin Saunders	Health services in circumstances related to reproduction
Avery Urbanek	Symptoms & signs inv. the circulatory/respiratory system
Barbara Flanagan	Symptoms & signs inv. the digestive system & abdomen
Barbara Furr	Arthropathies
Barbara Ortiz	Health services in circumstances related to reproduction
Barbara Schulte	General symptoms & signs
Barbera Miller	In situ & benign neoplasms and others of uncertainty
Bernard Wilkerson	Arthropathies
Bette Robinson	Arthropathies
Betty Carranza	Diseases of oral cavity, salivary glands & jaws
Betty Villalobos	Symptoms & signs inv. the digestive system & abdomen
Bobbie Boser	Diseases of oesophagus, stomach & duodenum
Brad Bullins	Symptoms & signs inv. the digestive system & abdomen
Brandi Tarleton	Other diseases of intestines
Brenda Trejo	In situ & benign neoplasms and others of uncertainty
Brent Wobbleton	Diseases of oral cavity, salivary glands & jaws
Brian Seibel	Symptoms & signs inv. the circulatory/respiratory system
Bridget Williams	Health services in circumstances related to reproduction
Brittany Delgiudice	Arthropathies
Brittany Duclos	Symptoms & signs inv. the digestive system & abdomen
Brittany Varner	Other diseases of the urinary system
Bruce Kirk	Health services in circumstances related to reproduction
Bryce Bush	Health services in circumstances related to reproduction
Byron McGibbon	Health services in circumstances related to reproduction
Calvin Crespo	Other conditions originating in the perinatal period
Cameron Rogers	Examination and investigation
Carl Kallevig	Other diseases of intestines
Carla Ingram	Other forms of heart disease
Carla Smith	Malignant neoplsm. of thyroid and oth. endo. Glands etc
Carlo Ennen	Diseases of oral cavity, salivary glands & jaws
Carlos Knowlton	Other forms of heart disease
Carmen Baum	Arthropathies
Carmen Stevens	Diseases of oral cavity, salivary glands & jaws
Carmon McDonald	Symptoms & signs inv. the digestive system & abdomen

Carol Dillon	Health services in circumstances related to reproduction
Carol Trombley	Ischaemic heart diseases
Carolyn Moore	Health services in circumstances related to reproduction
Carroll Poche	Health services in circumstances related to reproduction
Caryn Lombardo	Health services in circumstances related to reproduction
Casey Fellows	Dorsopathies
Catherine Johnson	Diseases of oesophagus, stomach & duodenum
Catherine Schneider	Symptoms & signs inv. the digestive system & abdomen
Catherine Vass	Other diseases of intestines
Cathy Winters	Symptoms & signs inv. the circulatory/respiratory system
Charles Johnson	Other diseases of intestines
Charles Yount	Symptoms & signs inv. the digestive system & abdomen
Charley Tucker	Diseases of oral cavity, salivary glands & jaws
Charlie Graham	Symptoms & signs inv. the digestive system & abdomen
Chester Brann	Disorders of lens (including cataracts)
Chris Stimpson	Soft tissue disorders
Christine Romney	Examination and investigation
Christine Weis	Ischaemic heart diseases
Christopher Anderson	Other diseases of the urinary system
Christopher Gustin	Diseases of oral cavity, salivary glands & jaws
Christopher Larsen	Diseases of oesophagus, stomach & duodenum
Cindi Sanders	Symptoms & signs inv. the digestive system & abdomen
Cindy Head	Other diseases of intestines
Cindy Landi	Health services in circumstances related to reproduction
Cindy Seymour	Diseases of oral cavity, salivary glands & jaws
Clarence Loera	Symptoms & signs inv. the digestive system & abdomen
Clayton Travelstead	Poisonings by drugs medicaments & biological substances
Consuelo Dufour	Health services in circumstances related to reproduction
Corey Dougherty	Health services in circumstances related to reproduction
Corey Hawkins	Other diseases of intestines
Cory Torres	Symptoms & signs inv. the digestive system & abdomen
Craig Prichard	Ischaemic heart diseases
Crystal Wright	Diseases of oral cavity, salivary glands & jaws
Curtis Mathis	Health services in circumstances related to reproduction
Curtis Plateroti	Diseases of oral cavity, salivary glands & jaws
Cynthia Dion	Diseases of oral cavity, salivary glands & jaws
Cynthia Douglas	Disorders of lens (including cataracts)
Dale Koss	Other forms of heart disease
Dana Cardwell	Diseases of oral cavity, salivary glands & jaws
Daniel Adank	Arthropathies
Daniel Cano	Other forms of heart disease
Daniel Denton	In situ & benign neoplasms and others of uncertainty
Daniel Githens	Ischaemic heart diseases

Daniel Melton	Health services in circumstances related to reproduction
Daniel Ortega	Health services in circumstances related to reproduction
Daniel Rooney	Health services in circumstances related to reproduction
Daniel Rosmarin	Acute upper respiratory infections
Danna Aguilar	Arthropathies
Danny Secor	Diseases of oral cavity, salivary glands & jaws
Darren Fischer	Dorsopathies
Darwin Jones	Symptoms & signs inv. the digestive system & abdomen
Daryl Cairone	Health services in circumstances related to reproduction
Dave Mickle	Dorsopathies
David Adams	Symptoms & signs inv. the digestive system & abdomen
David Aller	Other diseases of intestines
David Anderson	Other diseases of intestines
David Berry	Ischaemic heart diseases
David Brewer	Disorders of lens (including cataracts)
David Gibson	Arthropathies
David Hilton	Health services in circumstances related to reproduction
David James	Influenza & pneumonia
David Johnson	Other diseases of intestines
David Landreth	Health services in circumstances related to reproduction
David Pierce	Symptoms & signs inv. the digestive system & abdomen
David Thier	Arthropathies
Debbie Green	Arthropathies
Deborah Campbell	Injuries to the hip & thigh
Debra Young	Symptoms & signs inv. the digestive system & abdomen
Debroah Westervelt	Disorders of lens (including cataracts)
Delores Nolan	Other diseases of intestines
Denise Burbach	Diseases of oesophagus, stomach & duodenum
Denise Estrada	Health services in circumstances related to reproduction
Denise Richmond	Arthropathies
Denise Thomas	Symptoms & signs inv. the digestive system & abdomen
Derek Miller	Health services in circumstances related to reproduction
Derrick Mooney	Health services in circumstances related to reproduction
Desmond Hicks	Health services in circumstances related to reproduction
Dewey Whyte	Symptoms & signs inv. the digestive system & abdomen
Diana Thomas	Chronic lower respiratory diseases
Donald Guinane	Diseases of oral cavity, salivary glands & jaws
Donald Meaney	Health services in circumstances related to reproduction
Donald Murphy	Diseases of oesophagus, stomach & duodenum
Donald Shaw	Health services in circumstances related to reproduction
Donald Taul	Arthropathies
Donald Walker	Malignant neoplasms of lymphoid, haematopoietic & rel. tiss.
Donna Tidwell	Diseases of oral cavity, salivary glands & jaws

Doris Krepps	Symptoms & signs inv. the digestive system & abdomen
Doris Roghair	Arthropathies
Dorothy Applen	Health services in circumstances related to reproduction
Dorothy Henson	Other infections and disorders of the skin
Dorothy Hille	Arthropathies
Dorothy Tyler	Diseases of oesophagus, stomach & duodenum
Doug Shelton	Health services in circumstances related to reproduction
Douglas Smith	Health services in circumstances related to reproduction
Duane Morgan	Symptoms & signs inv. the digestive system & abdomen
Dwight Weinberg	Symptoms & signs inv. the digestive system & abdomen
Ed Gautreaux	Examination and investigation
Eddie Kochan	Diseases of oral cavity, salivary glands & jaws
Edith Peterson	Diseases of oesophagus, stomach & duodenum
Edith Thompson	Dorsopathies
Edna Catholic	Diseases of oral cavity, salivary glands & jaws
Edna Hernandez	Symptoms & signs inv. the digestive system & abdomen
Edward Bowling	Other forms of heart disease
Edwin Carroll	Ischaemic heart diseases
Edwin Harvey	Health services in circumstances related to reproduction
Edwin Wilson	Health services in circumstances related to reproduction
Eleanor Mccrary	Disorders of gall bladder, biliary tract & pancreas
Elizabeth Double	Examination and investigation
Elizabeth Evans	Poisonings by drugs medicaments & biological substances
Elizabeth Tyrone	Symptoms & signs inv. the digestive system & abdomen
Ellen Fraiser	Arthropathies
Elmer Nelms	Symptoms & signs inv. the digestive system & abdomen
Eloise Ponce	Symptoms & signs inv. the circulatory/respiratory system
Emilio Aron	Chronic lower respiratory diseases
Eric Cunningham	Poisonings by drugs medicaments & biological substances
Eric Pena	Diseases of oesophagus, stomach & duodenum
Eric Smith	Diseases of oral cavity, salivary glands & jaws
Erik Mcmillan	Dorsopathies
Estelle Walden	Soft tissue disorders
Ethel Reeder	Diseases of oral cavity, salivary glands & jaws
Eugene Burch	Other diseases of intestines
Eva Rank	Symptoms & signs inv. the digestive system & abdomen
Evelyn Willis	Symptoms & signs inv. the digestive system & abdomen
Evelyn Zirkle	Disorders of lens (including cataracts)
Faith Casey	Symptoms & signs inv. the digestive system & abdomen
Fannie Watson	Diseases of oral cavity, salivary glands & jaws
Fay Miller	Malignant neoplasm of digestive organs
Faye Baker	Symptoms & signs inv. the circulatory/respiratory system
Felice Zayas	Symptoms & signs inv. the digestive system & abdomen

Felicia Burch	Symptoms & signs inv. the digestive system & abdomen
Felicia Easterday	Diseases of oral cavity, salivary glands & jaws
Fernando George	Ischaemic heart diseases
Fernando Trombley	Symptoms & signs inv. the digestive system & abdomen
Frances Cooper	Poisonings by drugs medicaments & biological substances
Frances Scheff	Symptoms & signs inv. the digestive system & abdomen
Francine Arnold	Symptoms & signs inv. the circulatory/respiratory system
Francis Gray	Health services in circumstances related to reproduction
Fred Fitzgerald	Disorders of lens (including cataracts)
Frederick Morris	Symptoms & signs inv. the circulatory/respiratory system
Fredrick Duell	Arthropathies
Gabriel Pineda	Symptoms & signs inv. the digestive system & abdomen
Gary Hite	Symptoms & signs inv. the digestive system & abdomen
Gary Ramos	Dorsopathies
Gayle Welborn	In situ & benign neoplasms and others of uncertainty
George Brown	Diseases of oral cavity, salivary glands & jaws
George Foor	Symptoms & signs inv. the digestive system & abdomen
George Lopez	Symptoms & signs inv. the digestive system & abdomen
George Meyer	Influenza & pneumonia
George Willemssen	Chronic lower respiratory diseases
Georgina Mcphatter	Diseases of oral cavity, salivary glands & jaws
Gerald Dear	Diseases of oral cavity, salivary glands & jaws
Gerald Garcia	Symptoms & signs inv. the circulatory/respiratory system
Gerald Taylor	Other diseases of intestines
Geraldine Raisley	Diseases of oral cavity, salivary glands & jaws
Gladis Artiaga	Symptoms & signs inv. the digestive system & abdomen
Glenn Keller	Other diseases of intestines
Glenn Kube	Other forms of heart disease
Glenn Rash	Other diseases of intestines
Glenn Tweed	Health services in circumstances related to reproduction
Gloria Reid	Health services in circumstances related to reproduction
Gloria Rios	Health services in circumstances related to reproduction
Grady Wilson	Symptoms & signs inv. the circulatory/respiratory system
Greg Bruss	Poisonings by drugs medicaments & biological substances
Greg Smith	In situ & benign neoplasms and others of uncertainty
Gregg Tucker	Influenza & pneumonia
Gregory Clarke	Symptoms & signs inv. the digestive system & abdomen
Gregory Posner	Diseases of oral cavity, salivary glands & jaws
Guillermo Robertson	Symptoms & signs inv. the digestive system & abdomen
Harvey Story	Health services in circumstances related to reproduction
Hazel Flores	Influenza & pneumonia
Heather Bunn	Health services in circumstances related to reproduction
Heather Santos	Symptoms & signs inv. the circulatory/respiratory system

Hector Franklin	Arthropathies
Heidi Johnson	Dorsopathies
Helen Evans	Other disorders of the eye etc
Helen Foster	Arthropathies
Henry Murray	Symptoms & signs inv. the digestive system & abdomen
Herbert Dean	Health services in circumstances related to reproduction
Herbert Taylor	Health services in circumstances related to reproduction
Hilda Rubarts	Health services in circumstances related to reproduction
Hope McCuller	Symptoms & signs inv. the digestive system & abdomen
Howard Horn	Other diseases of intestines
Howard Wong	Soft tissue disorders
Ida Alexander	Symptoms & signs inv. the digestive system & abdomen
Ida Vicente	Other infections and disorders of the skin
Imogene Doerr	Symptoms & signs inv. the digestive system & abdomen
India Cox	Examination and investigation
Irene Hudson	Symptoms & signs inv. the circulatory/respiratory system
Iris Bowman	Persons encountering health services for specific care
Iris Pleasanton	Other acute lower respiratory infections
Isabelle Smith	Arthropathies
Israel Trost	Symptoms & signs inv. the digestive system & abdomen
Isreal Vogel	Health services in circumstances related to reproduction
Jackie Harrison	Arthropathies
Jacqueline Ortego	Arthropathies
Jake Kerns	Other diseases of intestines
James Amo	Arthropathies
James Cleary	Influenza & pneumonia
James Marks	Health services in circumstances related to reproduction
James Rutenberg	Health services in circumstances related to reproduction
James Truax	Dorsopathies
James Walker	Diseases of oral cavity, salivary glands & jaws
Jamie Johnson	Symptoms & signs inv. the digestive system & abdomen
Jane Witherite	Diseases of oral cavity, salivary glands & jaws
Janelle Smith	Symptoms & signs inv. the circulatory/respiratory system
Janet Koenig	Health services in circumstances related to reproduction
Janet Lewis	Health services in circumstances related to reproduction
Janice Partin	General symptoms & signs
Janice Smithey	Health services in circumstances related to reproduction
Jason Mermis	Arthropathies
Javier Klein	Symptoms & signs inv. the digestive system & abdomen
Javier Yarbrough	Ischaemic heart diseases
Jay Morris	Health services in circumstances related to reproduction
Jean Houston	Diseases of oesophagus, stomach & duodenum
Jeannette Collins	Health services in circumstances related to reproduction

Jeff Hong	Diseases of oral cavity, salivary glands & jaws
Jeffery Martinez	Health services in circumstances related to reproduction
Jennie Bunton	Ischaemic heart diseases
Jennie Fortman	Arthropathies
Jennifer Davidson	Malignant neoplasm of digestive organs
Jennifer Pater	In situ & benign neoplasms and others of uncertainty
Jennifer Seng	Symptoms & signs inv. the digestive system & abdomen
Jennifer Ward	Other conditions originating in the perinatal period
Jeremy Dashner	Other diseases of the urinary system
Jeremy Goyco	General symptoms & signs
Jerome Pedone	Ischaemic heart diseases
Jerry Flores	Other diseases of intestines
Jerry Gardner	Diseases of oesophagus, stomach & duodenum
Jerry Stone	Health services in circumstances related to reproduction
Jerry Wells	Other forms of heart disease
Jerry Westervelt	Symptoms & signs inv. the digestive system & abdomen
Jessica Shaffer	Diseases of oral cavity, salivary glands & jaws
Jim Mills	Symptoms & signs inv. the circulatory/respiratory system
Jimmie Ghan	Diseases of oral cavity, salivary glands & jaws
Jimmy Lopez	Diseases of oral cavity, salivary glands & jaws
Jimmy Moore	Arthropathies
Joan Brucker	Health services in circumstances related to reproduction
Joan Deaton	Diseases of oral cavity, salivary glands & jaws
Joann Funke	Symptoms & signs inv. the circulatory/respiratory system
Joanne Dayton	Malignant neoplasms of lymphoid, haematopoietic & rel. tiss.
Joanne Smith	Symptoms & signs inv. the digestive system & abdomen
Joanne Williams	Symptoms & signs inv. the digestive system & abdomen
Joel Brown	Diseases of oral cavity, salivary glands & jaws
John Carrillo	Symptoms & signs inv. the digestive system & abdomen
John Carroll	In situ & benign neoplasms and others of uncertainty
John Gariepy	Injuries to the head
John Martin	Arthropathies
John Ortiz	Diseases of oral cavity, salivary glands & jaws
John Slavick	Symptoms & signs inv. the digestive system & abdomen
John Taylor	Ischaemic heart diseases
John Vaughan	Health services in circumstances related to reproduction
John Villarreal	Symptoms & signs inv. the digestive system & abdomen
John Yerkey	Diseases of oesophagus, stomach & duodenum
Johnny Rayburn	Health services in circumstances related to reproduction
Jose Fisher	Health services in circumstances related to reproduction
Joseph Albrecht	Diseases of oesophagus, stomach & duodenum
Joseph Apana	Malignant neoplasms of lymphoid, haematopoietic & rel. tiss.
Joseph Arroyo	Diseases of oral cavity, salivary glands & jaws

Joseph Buchmeier	Symptoms & signs inv. the digestive system & abdomen
Joseph Hatley	Other diseases of intestines
Joseph Johnston	Malignant neoplasm of digestive organs
Joseph Katechis	Diseases of oesophagus, stomach & duodenum
Joseph Schwab	Ischaemic heart diseases
Joseph Simeon	Dorsopathies
Joshua Brinkman	Disorders of lens (including cataracts)
Joyce Crumpton	Arthropathies
Juan Castro	Arthropathies
Juanita Cruz	Examination and investigation
Julia Keiser	Other diseases of intestines
Julie Conner	Symptoms & signs inv. the digestive system & abdomen
Julie Laing	Ischaemic heart diseases
Julio Slone	Symptoms & signs inv. the digestive system & abdomen
Justin Huntington	Symptoms & signs inv. the digestive system & abdomen
Justin Zimmer	Ischaemic heart diseases
Kara Bailey	Arthropathies
Karen Oliver	Symptoms & signs inv. the digestive system & abdomen
Karen Ronzoni	Disorders of gall bladder, biliary tract & pancreas
Karen Slaughter	Health services in circumstances related to reproduction
Karla Hopkins	Malignant neoplasms of lymphoid, haematopoietic & rel. tiss.
Katharine Cook	Diseases of oesophagus, stomach & duodenum
Kathleen Rulli	Other forms of heart disease
Kathleen Simmons	Health services in circumstances related to reproduction
Kathryn Hunter	Malignant neoplasm of digestive organs
Katie Boucher	Other infections and disorders of the skin
Katie Taylor	Other diseases of intestines
Katrina Thomas	In situ & benign neoplasms and others of uncertainty
Keith Griffith	Symptoms & signs inv. the digestive system & abdomen
Keith Kindred	Symptoms & signs inv. the digestive system & abdomen
Keith Moore	Symptoms & signs inv. the digestive system & abdomen
Keith Verdin	In situ & benign neoplasms and others of uncertainty
Kelly Reine	Influenza & pneumonia
Kelly Robles	Diseases of oesophagus, stomach & duodenum
Kenneth Bemrose	Anaemias
Kenneth Rodriguez	Arthropathies
Kevin Lara	In situ & benign neoplasms and others of uncertainty
Kevin Poteat	Symptoms & signs inv. the digestive system & abdomen
Kim Huckleberry	Other forms of heart disease
Kimberly Brackeen	In situ & benign neoplasms and others of uncertainty
Kimberly Bushby	Arthropathies
Kimberly Pomeroy	Health services in circumstances related to reproduction
Kris Kitterman	Symptoms & signs inv. the digestive system & abdomen

Kristina Priestley	Health services in circumstances related to reproduction
Kurt Killian	Arthropathies
Lala Smith	Arthropathies
Lana Ellett	Symptoms & signs inv. the digestive system & abdomen
Larisa Cape	Diseases of oral cavity, salivary glands & jaws
Laura Holmes	Health services in circumstances related to reproduction
Laura Hughes	Symptoms & signs inv. the digestive system & abdomen
Laurel Ochs	Health services in circumstances related to reproduction
Lavonda Hemingway	Ischaemic heart diseases
Lawanda Groover	Health services in circumstances related to reproduction
Lawrence Malamud	Other diseases of intestines
Leo Cadiz	Diseases of oral cavity, salivary glands & jaws
Leonard Henderlite	Malignant neoplasm of digestive organs
Leonard Hogans	Health services in circumstances related to reproduction
Leonard Yang	Health services in circumstances related to reproduction
Lewis Dawson	Symptoms & signs inv. the digestive system & abdomen
Lillie Sullivan	Symptoms & signs inv. the digestive system & abdomen
Linda Acevedo	Symptoms & signs inv. the digestive system & abdomen
Linda George	Dorsopathies
Linda Mccrary	In situ & benign neoplasms and others of uncertainty
Linda Ponce	Ischaemic heart diseases
Linda Vidrine	Other diseases of the urinary system
Lionel Gruber	Other infections and disorders of the skin
Lisa Fernandez	Diseases of oesophagus, stomach & duodenum
Lisa Hunter	Diseases of oral cavity, salivary glands & jaws
Lois Morgon	Arthropathies
Lois Williams	Ischaemic heart diseases
Lon Toth	Diseases of oral cavity, salivary glands & jaws
Lonny Owens	Health services in circumstances related to reproduction
Lori Demark	Health services in circumstances related to reproduction
Lorraine Hamel	Diseases of oesophagus, stomach & duodenum
Lorraine Ramires	Diseases of oral cavity, salivary glands & jaws
Louis Gurley	Diseases of oesophagus, stomach & duodenum
Louis Radsky	Ischaemic heart diseases
Louise Nock	Other diseases of the urinary system
Louise Thompson	Health services in circumstances related to reproduction
Lucas Medina	In situ & benign neoplasms and others of uncertainty
Lucia Gilmartin	Symptoms & signs inv. the nervous & musculoskeletal sys.
Lucille Clankscales	Diseases of oral cavity, salivary glands & jaws
Lucille Jameson	Diseases of oesophagus, stomach & duodenum
Lucy Barnette	Health services in circumstances related to reproduction
Lula Mcmanus	Symptoms & signs inv. the digestive system & abdomen
Lydia Jackson	Health services in circumstances related to reproduction

Lyle Taylor	Diseases of oral cavity, salivary glands & jaws
Lynn Pickett	In situ & benign neoplasms and others of uncertainty
Malika Sams	Arthropathies
Manuel West	Diseases of oral cavity, salivary glands & jaws
Marc Chee	Other diseases of intestines
Marcos Martin	Ischaemic heart diseases
Margaret Mccrystal	Health services in circumstances related to reproduction
Margaret O'Brien	Health services in circumstances related to reproduction
Margaret Woods	Health services in circumstances related to reproduction
Margie Myers	Health services in circumstances related to reproduction
Margo Olive	Symptoms & signs inv. the digestive system & abdomen
Marianne Jenkins	General symptoms & signs
Marie Marks	Diseases of oesophagus, stomach & duodenum
Marilyn Simmons	Symptoms & signs inv. the digestive system & abdomen
Marion Sewell	Diseases of oral cavity, salivary glands & jaws
Marjorie Burks	Health services in circumstances related to reproduction
Marjorie Carr	Arthropathies
Marjorie Gallegos	Arthropathies
Mark Brock	Malignant neoplasm of digestive organs
Mark Coon	Health services in circumstances related to reproduction
Mark Kiper	Symptoms & signs inv. the digestive system & abdomen
Mark Rincon	Health services in circumstances related to reproduction
Marla Green	General symptoms & signs
Marlin Bennett	Persons encountering health services for specific care
Marta Hardy	Health services in circumstances related to reproduction
Marvin Sheehan	Diseases of oral cavity, salivary glands & jaws
Mary Chisolm	Examination and investigation
Mary Dennis	In situ & benign neoplasms and others of uncertainty
Mary Foster	Health services in circumstances related to reproduction
Mary Garcia	Health services in circumstances related to reproduction
Mary Lind	Arthropathies
Mary Matthews	Diseases of oesophagus, stomach & duodenum
Mary Morey	Symptoms & signs inv. the digestive system & abdomen
Mary Seiber	Other diseases of intestines
Mary Shoemaker	Arthropathies
Mary Thacker	Symptoms & signs inv. the digestive system & abdomen
Mary Webber	Health services in circumstances related to reproduction
Matthew Bennett	Health services in circumstances related to reproduction
Matthew Dixon	Diseases of oesophagus, stomach & duodenum
Matthew Hays	Arthropathies
Matthew Pickell	Other diseases of intestines
Mattie Orr	Influenza & pneumonia
Maureen Streets	Other forms of heart disease

Maxine Vaughan	Dorsopathies
Melanie Bouy	Disorders of lens (including cataracts)
Melinda Pearson	Examination and investigation
Melissa Glenn	Symptoms & signs inv. the circulatory/respiratory system
Melissa Knutson	Ischaemic heart diseases
Merle Sanders	Health services in circumstances related to reproduction
Mervin Booth	Symptoms & signs inv. the digestive system & abdomen
Michael Bame	Symptoms & signs inv. the digestive system & abdomen
Michael Battle	Other diseases of intestines
Michael Bickerstaff	Other forms of heart disease
Michael Cormier	Symptoms & signs inv. the circulatory/respiratory system
Michael Farmer	Diseases of oral cavity, salivary glands & jaws
Michael Mitchell	Other diseases of intestines
Michael Morris	Health services in circumstances related to reproduction
Michael Robinson	Diseases of oesophagus, stomach & duodenum
Michael Simmons	Health services in circumstances related to reproduction
Michael Stewart	Health services in circumstances related to reproduction
Michael Walters	Arthropathies
Michael Yates	Diseases of oral cavity, salivary glands & jaws
Michelle Alexander	Symptoms & signs inv. the digestive system & abdomen
Michelle Cooke	Diseases of oral cavity, salivary glands & jaws
Michelle Cotton	Other forms of heart disease
Michelle Nelson	Health services in circumstances related to reproduction
Michelle Oaks	Symptoms & signs inv. the digestive system & abdomen
Mildred Eoff	Other diseases of intestines
Mildred Smudrick	Diseases of oral cavity, salivary glands & jaws
Monica Speroni	Symptoms & signs inv. the digestive system & abdomen
Monty Mauricio	Arthropathies
Myron Ditman	Health services in circumstances related to reproduction
Nadine Carner	Symptoms & signs inv. the digestive system & abdomen
Nancy Hensley	Arthropathies
Nancy Patton	Symptoms & signs inv. the digestive system & abdomen
Naomi Wojenski	Disorders of lens (including cataracts)
Nathan Parsons	Arthropathies
Nicole Harbin	Symptoms & signs inv. the digestive system & abdomen
Nora Harms	Arthropathies
Olga Harris	Diseases of oral cavity, salivary glands & jaws
Olga Kruse	Symptoms & signs inv. the digestive system & abdomen
Oralia Fisher	Arthropathies
Orlando Markus	Diseases of oral cavity, salivary glands & jaws
Pamela Sherwood	Health services in circumstances related to reproduction
Pamela Vandusen	Symptoms & signs inv. the digestive system & abdomen
Patricia Turbyfill	Arthropathies

Patricia Whitesell	Health services in circumstances related to reproduction
Patrick Campbell	In situ & benign neoplasms and others of uncertainty
Paul Buchholz	Anaemias
Paul Cooke	Other forms of heart disease
Paul Ellis	Symptoms & signs inv. the digestive system & abdomen
Paul Nguyen	Diseases of oesophagus, stomach & duodenum
Pearl Cribbs	In situ & benign neoplasms and others of uncertainty
Pearl Oakman	Ischaemic heart diseases
Peggy Cook	Malignant neoplasm of digestive organs
Peggy Ibach	Diseases of oesophagus, stomach & duodenum
Peggy Vannote	Symptoms & signs inv. the digestive system & abdomen
Peter Abbenante	Diseases of oral cavity, salivary glands & jaws
Peter Lewis	Symptoms & signs inv. the digestive system & abdomen
Philip Toledo	Diseases of oesophagus, stomach & duodenum
Philip Wilson	Disorders of gall bladder, biliary tract & pancreas
Phyllis Stevenson	Malignant neoplasm of digestive organs
Polly Murdoch	Anaemias
Quincy Davis	Malignant neoplasms of lymphoid, haematopoietic & rel. tiss.
Quinton Newton	Malignant neoplasm of digestive organs
Rachael Brown	Symptoms & signs inv. the circulatory/respiratory system
Rachel Fitch	Health services in circumstances related to reproduction
Ralph Coy	Disorders of lens (including cataracts)
Ralph Mink	Diseases of oral cavity, salivary glands & jaws
Randi Kee	Health services in circumstances related to reproduction
Ray Prichard	Health services in circumstances related to reproduction
Raymond Chase	Acute upper respiratory infections
Rayna Mahajan	Symptoms & signs inv. the digestive system & abdomen
Rebecca Brown	Arthropathies
Rebecca Eshleman	Other forms of heart disease
Rebecca Espinal	Diseases of oral cavity, salivary glands & jaws
Rebecca Stewart	Symptoms & signs inv. the digestive system & abdomen
Rebecca Tucker	Health services in circumstances related to reproduction
Reggie Welch	Soft tissue disorders
Reginald Coleman	Diseases of oesophagus, stomach & duodenum
Renee Broussard	Health services in circumstances related to reproduction
Renee Farnham	Diseases of oral cavity, salivary glands & jaws
Rhonda Prescott	Poisonings by drugs medicaments & biological substances
Richard Attebery	Disorders of lens (including cataracts)
Richard Baerga	Symptoms & signs inv. the circulatory/respiratory system
Richard Body	Dorsopathies
Richard Butler	Arthropathies
Richard Carter	Arthropathies
Richard Eddins	Symptoms & signs inv. the digestive system & abdomen

Richard Gass	Diseases of oesophagus, stomach & duodenum
Richard Hawk	Symptoms & signs inv. the digestive system & abdomen
Richard Hawthorne	Malignant neoplasms of lymphoid, haematopoietic & rel. tiss.
Richard Merchant	Health services in circumstances related to reproduction
Richard Parr	Diseases of oral cavity, salivary glands & jaws
Richard Randall	General symptoms & signs
Rick Pena	Health services in circumstances related to reproduction
Rita Bennett	Health services in circumstances related to reproduction
Robert Amenta	Other disorders of the eye etc
Robert Brewer	Symptoms & signs inv. the digestive system & abdomen
Robert Carney	Diseases of oral cavity, salivary glands & jaws
Robert Chaney	Health services in circumstances related to reproduction
Robert Davisson	Ischaemic heart diseases
Robert Gartland	Diseases of oesophagus, stomach & duodenum
Robert Joyce	Ischaemic heart diseases
Robert King	Arthropathies
Robert Lee	Arthropathies
Robert Lemmon	Symptoms & signs inv. the digestive system & abdomen
Robert Montgomery	Diseases of oral cavity, salivary glands & jaws
Robert Palacios	Health services in circumstances related to reproduction
Robert Rodriguez	Dorsopathies
Roberto Goolsby	Diseases of oral cavity, salivary glands & jaws
Robin Mills	Arthropathies
Roger Mcdaniel	Other forms of heart disease
Roger Torres	Symptoms & signs inv. the circulatory/respiratory system
Roland Pontious	Symptoms & signs inv. the digestive system & abdomen
Ronald Coleman	Ischaemic heart diseases
Ronald Katz	Health services in circumstances related to reproduction
Ronald Keith	Diseases of oral cavity, salivary glands & jaws
Ronald Lukes	Symptoms & signs inv. the digestive system & abdomen
Ronald Mann	Influenza & pneumonia
Ronald Morales	Symptoms & signs inv. the digestive system & abdomen
Ronda Guillot	Symptoms & signs inv. the digestive system & abdomen
Rosaura Alvarez	Health services in circumstances related to reproduction
Rose Bell	Other forms of heart disease
Rose Bodkin	Diseases of oral cavity, salivary glands & jaws
Rose Patrick	Health services in circumstances related to reproduction
Ross Medders	Arthropathies
Roxie Horrocks	Symptoms & signs inv. the digestive system & abdomen
Roy James	Symptoms & signs inv. the digestive system & abdomen
Ruby Mcpherson	General symptoms & signs
Ruby Olivier	Ischaemic heart diseases
Russ Scott	Dorsopathies

Ruth Coulter	Diseases of oesophagus, stomach & duodenum
Ruth Felton	Other diseases of intestines
Ruth Gentles	Symptoms & signs inv. the circulatory/respiratory system
Ruth McIntyre	Other diseases of the urinary system
Ruth Teixeira	Symptoms & signs inv. the circulatory/respiratory system
Ryan Bean	Poisonings by drugs medicaments & biological substances
Ryan Finklea	Malignant neoplasm of digestive organs
Sabrina Johnson	Health services in circumstances related to reproduction
Sally Young	Examination and investigation
Sandra Brown	Injuries to the head
Sandra Smith	Health services in circumstances related to reproduction
Santiago Anderson	Diseases of oral cavity, salivary glands & jaws
Sara Castrejon	Diseases of oesophagus, stomach & duodenum
Sara Morris	Arthropathies
Sarah Monaghan	Health services in circumstances related to reproduction
Scott Borrow	Diseases of oesophagus, stomach & duodenum
Sean Campbell	Arthropathies
Sergio Roemer	Symptoms & signs inv. the circulatory/respiratory system
Shannon Thomas	Symptoms & signs inv. the digestive system & abdomen
Sharon Brown	Health services in circumstances related to reproduction
Sharon Nokes	Malignant neoplasms of lymphoid, haematopoietic & rel. tiss.
Shawn Hunter	Health services in circumstances related to reproduction
Sheila Butts	Malignant neoplasms of lymphoid, haematopoietic & rel. tiss.
Sheila Johnson	Diseases of oesophagus, stomach & duodenum
Sheri Howard	Symptoms & signs inv. the digestive system & abdomen
Sheri Middleton	Diseases of oesophagus, stomach & duodenum
Shirley Banda	Symptoms & signs inv. the digestive system & abdomen
Shirley Claeys	In situ & benign neoplasms and others of uncertainty
Shirley Conley	Dorsopathies
Shirley Cox	Other diseases of the urinary system
Shonda Walsh	Chronic lower respiratory diseases
Sidney Taylor	Disorders of lens (including cataracts)
Sona Pritchard	Other diseases of intestines
Sonya Munford	Arthropathies
Stanley Bernard	Other forms of heart disease
Stephen Miracle	Health services in circumstances related to reproduction
Steve Robinson	Health services in circumstances related to reproduction
Steven Cowan	Arthropathies
Steven Saffell	Diseases of oesophagus, stomach & duodenum
Steven Tandy	Arthropathies
Steven Thacker	Symptoms & signs inv. the digestive system & abdomen
Susan Barkley	Health services in circumstances related to reproduction
Susan Casey	Symptoms & signs inv. the digestive system & abdomen

Susan Godinez	Arthropathies
Susan Grant	Health services in circumstances related to reproduction
Sylvia Williams	Health services in circumstances related to reproduction
Tammy Mendieta	Health services in circumstances related to reproduction
Tanya Pate	Other diseases of the urinary system
Teresa Rice	Symptoms & signs inv. the digestive system & abdomen
Teresa Walker	Ischaemic heart diseases
Teresa Woodall	Diseases of oral cavity, salivary glands & jaws
Teri Alves	Arthropathies
Terrance Littleton	Symptoms & signs inv. the digestive system & abdomen
Terri Gowdy	Other forms of heart disease
Terri Mildon	Other forms of heart disease
Terry Angle	Other diseases of intestines
Terry Dickey	Diseases of oral cavity, salivary glands & jaws
Terry Lynch	Arthropathies
Terry McGough	Health services in circumstances related to reproduction
Terry Mcnealy	Health services in circumstances related to reproduction
Tessie Stein	Arthropathies
Thomas Baca	Diseases of oral cavity, salivary glands & jaws
Thomas Bowman	Diseases of oral cavity, salivary glands & jaws
Thomas King	Symptoms & signs inv. the circulatory/respiratory system
Thomas Mills	Diseases of oral cavity, salivary glands & jaws
Thomas Richards	Other diseases of intestines
Thomas Upchurch	Health services in circumstances related to reproduction
Thomas Wills	Health services in circumstances related to reproduction
Tiffany Frazier	Symptoms & signs inv. the digestive system & abdomen
Tim Cornett	Symptoms & signs inv. the digestive system & abdomen
Tim Wright	Poisonings by drugs medicaments & biological substances
Timothy Przybyla	Health services in circumstances related to reproduction
Tina Williams	Health services in circumstances related to reproduction
Todd George	Symptoms & signs inv. the digestive system & abdomen
Todd Hileman	Symptoms & signs inv. the digestive system & abdomen
Tom Holmes	Symptoms & signs inv. the circulatory/respiratory system
Toni Sullins	Disorders of lens (including cataracts)
Tony Santos	Chronic lower respiratory diseases
Tony Seefeldt	In situ & benign neoplasms and others of uncertainty
Tory Wallace	Health services in circumstances related to reproduction
Travis Dansie	Diseases of oral cavity, salivary glands & jaws
Veronica Young	Diseases of oral cavity, salivary glands & jaws
Vicki Abel	Diseases of oesophagus, stomach & duodenum
Vicki Wax	Arthropathies
Vincent Herzberg	Anaemias
Viola Oliver	In situ & benign neoplasms and others of uncertainty

Virgie Quinones	Other diseases of intestines
Walter Burton	Influenza & pneumonia
Walter Molina	Disorders of lens (including cataracts)
Wanda Good	Symptoms & signs inv. the digestive system & abdomen
Wanda Meecham	Poisonings by drugs medicaments & biological substances
Wanda Mendez	Malignant neoplasms of lymphoid, haematopoietic & rel. tiss.
Wendy Sansburn	Diseases of oral cavity, salivary glands & jaws
Wilfred Gorelick	Arthropathies
Willene Redding	Symptoms & signs inv. the digestive system & abdomen
William Arrington	Other forms of heart disease
William Burgess	Chronic lower respiratory diseases
William Griffin	Ischaemic heart diseases
William Hadsall	Diseases of oral cavity, salivary glands & jaws
William Johnson	Diseases of oral cavity, salivary glands & jaws
William Kelleher	Health services in circumstances related to reproduction
William Leingang	Health services in circumstances related to reproduction
William Richardson	Other diseases of intestines
William Thomas	Health services in circumstances related to reproduction
William Wheat	Dorsopathies
Willie Eichorst	Diseases of oral cavity, salivary glands & jaws
Willie Valenzuela	Arthropathies
Yong Litchford	Arthropathies
Yvette Human	Symptoms & signs inv. the digestive system & abdomen
Yvonne Steichen	Soft tissue disorders
Zita Johnson	Examination and investigation

Anonymity report for table: hospital_data

Quasi Identifiers	Sensitive Attributes
sex, race, age	disease

Anonymity values after the generalization starting from "any"

Generalization Level	k Anonymity	I Diversity	Entropy I Diversity	I Loss
1	1	1	1.0	
2	34	8	3.63	2278801.44
3	1	1	1.0	1289359.73

Taxonomy tree for table: hospital_data

