

# Index

- @@ SQL operator, 182
- [] operator, 26, 91, 194
- \$ operator, 27, 91
- %>% operator, 89
  
- Acemoglu, Daron, 88
- adist() function, 186
- adjacency list, 189, 205
- adjacency matrix, 189
- Afrobarometer, 4
- aggregation function, 32, 69, 83, 94, 95, 116
- agrep() function, 186
- agrpl() function, 186
- Ahlquist, John, 201
- Albert, Réka, 188
- ALTER TABLE SQL statement, 115, 130, 159, 162, 199
- Altman, David, 191
- American Standard Code for Information Interchange, 41
- Apple Numbers, 59
- ArcGIS, 149
- arrange() function, 98
- as.data.frame() function, 91, 157, 179
- as.Date() function, 77
- as.numeric() function, 79
- attribute table, 147
- attributes (graph), 188
- avg() SQL function, 141
  
- Barabási, Albert-László, 188
- Barberá, Pablo, 53
- Barbieri, Katherine, 188, 190
  
- Baturo, Alexander, 169
- Bernhard, Michael, 191
- Bliss, Harry, 190
- bounding box, 153
- Bryan, Jennifer, 55, 56
  
- Cartesian product, 81
- centrality, 194
- character variable, 27
- Chen, Xi, 60
- class() function, 53
- cloud storage, 213
- coding (measurement), 24
- colnames() function, 77
- coordinate system, 149, 153
  - geographic (unprojected), 149
  - projected, 149
- Coppedge, Michael, 191
- Cornell, Agnes, 191
- corpus (text data), 167
- Correlates of War, 92, 190
- countrycode package, 92
- countrycode() function, 92
- CREATE INDEX SQL statement, 139, 182, 199
- CREATE TABLE SQL statement, 111, 138
- CREATE USER SQL statement, 140
  
- DA-RT initiative, 8
- Dasandi, Niheer, 169
- data
  - redundancy, 33, 104, 121
  - representation, 25
  - sensitive, 215

- data (Cont.)
  - sharing, 215
  - structure, 210
  - structured, 168
  - type, 27, 79
  - unstructured, 168, 184
  - versioning, 216
- Data Carpentry, 72
- data definition, 36, 108
- data extraction, 36, 109
- data frame, 25
- data manipulation, 36, 109
- data storage
  - persistent, 39
  - volatile, 39
- data, scientific, 23
- `data.frame()` function, 25, 30, 89
- database client, 105
- database management system, 10, 20, 103
  - access control, 140
- database server, 105
- dataset, scientific, 24
- Dataverse, 215
- `dbAppendTable()` function, 114
- `dbConnect()` function, 20, 107
- `dbExecute()` function, 110
- `dbGetQuery()` function, 112
- DBI interface, 107
- `dbListTables()` function, 111
- `dbWriteTable()` function, 114, 159, 179
- De Lange, Sarah, 123
- declarative programming, 119
- degree centrality, 194, 199
- `degree()` function, 194
- DELETE SQL statement, 113, 131, 199
- Demographic and Health Surveys, 4, 9
- `dfm()` function, 177
- `dfm_remove()` function, 177
- `dfm_select()` function, 178
- doBy package, 32, 82
- document (text data), 167
- document variable, 171
- document-feature matrix, 177
- Döring, Holger, 110
- double variable, 27
- dplyr package, 88
- Dreher, Axel, 49
- DROP TABLE SQL statement, 114
- Dropbox, 213
- dynamic typing, 210
- E() function, 194
- edge (graph), 187
- `edge_attr()` function, 196
- `eigen_centrality()` function, 195
- eigenvector centrality, 195
- electoral disproportionality, 109, 118
- entity-relationship-model, 133
- EPSG list of spatial reference systems, 153
- escaping (characters), 173
- Evans, Georgina, 215
- event dataset, 150
- `expand.grid()` function, 138
- `extract()` SQL function, 115
- `featnames()` function, 178
- feature, spatial, 151
- field separator, 46
- file
  - binary, 40
  - compression, 48, 185
  - encoding, 41, 168
  - extension, 43
  - name, 55
  - text, 40
  - type, 39
- file format
  - CSV, 45, 70
  - Excel, 49, 64, 92
  - guide, 57
  - MS Word, 171
  - PDF, 171
  - R data, 52
  - serialized R data, 52
  - shapefile, 154
  - SPSS, 51
  - Stata, 50
- `file.path()` function, 18
- `filter()` function, 98
- Fish, Steven, 191
- foreign key, 122, 129
- `format()` function, 77, 79
- FRED data portal, 75
- Froio, Caterina, 123
- fuzzy string matching, 186
- G-Econ, 60
- Gallagher index, 109, 118
- Gastaldi, Lisa, 191
- `generate_series()` SQL function, 138
- Geo-referenced Event Dataset, 150
- Geographic Information Systems, 147

- geometry column, 159  
 geometry, spatial, 148, 159  
 Gerring, John, 191  
 Git, 214  
 Gjerløw, Haakon, 191  
 Gleditsch, Kristian Skrede, 45  
 Glynn, Adam, 191  
 GRANT SQL statement, 141  
 graph, 187  
   directed, 188  
   undirected, 187  
 graph database, 206  
 graph\_from\_data\_frame() function, 193  
 grep() function, 173  
 grepl() function, 173  
 Grimmer, Justin, 167  
 Grofman, Bernard, 109  
 group() function, 97  
 group\_by() function, 94, 157  
 grouping (tibble), 94  
 guess\_encoding() function, 42  
 gzfile() function, 48
- Halikiopoulou, Daphne, 123  
 haven package, 50, 51  
 Hicken, Allen, 191  
 Houle, Christian, 88  
 Höglbladh, Stina, 150
- identical() function, 54  
 if\_else() function, 93  
 igraph package, 192  
 Ilchenko, Nina, 191  
 index (search), 136  
 induced\_subgraph() function, 195  
 inner\_join() function, 93  
 INSERT SQL statement, 112, 130, 198  
 install.packages() function, 18  
 integer variable, 27  
 invisible characters, 40, 172  
 is.na() function, 195
- join, 93, 125  
   inner, 93, 126  
   left, 203  
   spatial, 151, 156, 161
- Keshk, Omar, 188, 190  
 King, Gary, 215  
 Knutsen, Carl Henrik, 191  
 Krusell, Joshua, 191
- kwic() function, 176
- labelled package, 51  
 lag() function, 97  
 lagged variable, 97  
 layer, spatial, 156  
 Lee, Hoon, 188  
 left\_join() function, 93, 158  
 length() function, 83  
 Levenshtein distance, 186  
 levenshtein() SQL function, 186  
 Lewis, Paul, 123  
 LibreOffice, 59  
 Lijphart, Arend, 109  
 LIKE SQL operator, 180  
 Lindberg, Staffan, 191  
 load() function, 53  
 logical variable, 27  
 long table, 32, 97, 210  
 Lovelace, Robin, 165  
 ls() function, 53  
 Lührmann, Anna, 191
- Manow, Philip, 110  
 map projection, 149  
 Marquardt, Kyle, 191  
 Maxwell, Laura, 191  
 McMann, Kelly, 191  
 mean() function, 83  
 Mechkova, Valeriya, 191  
 Medzihorsky, Juraj, 191  
 Melander, Erik, 150  
 merge() function, 35, 79, 81, 89  
 metadata (text data), 167  
 Microsoft Excel, 49, 59  
   cell formatting, 63  
   filtering, 65  
   freeze panes, 63  
   Pivot table, 68  
   sheets, 61  
 Mikhaylov, Slava, 169  
 Mitchell, Sara McLaughlin, 188  
 Mudde, Cas, 122, 123  
 Muenchow, Jannes, 165  
 mutate() function, 92, 97  
 MySQL, 106
- n() function, 94  
 natural language processing, 175  
 Neo4j, 206  
 Newman, Mark, 187  
 node (graph), 187

- Nordhaus, William, 60  
 Nowosad, Jakub, 165  
 nrow() function, 80
- Obama, Barack, 75  
 one-to-many relationship, 125  
 one-to-one relationship, 127  
 Open Office, 59  
 Open Science Foundation, 215  
 openslx package, 50  
 Oracle, 106  
 overlay (spatial), 151, 156
- ParlGov, 109, 122  
 Paxton, Pamela, 191  
 Pemstein, Daniel, 191  
 Pernes, Josefine, 191  
 pgAdmin, 144  
 Piketty, Thomas, 75  
 pipe operator, 89  
 Pirro, Andrea, 123  
 pivot\_longer() function, 98  
 pivot\_wider() function, 98  
 plot.igraph() function, 196  
 plot.sf() function, 153  
 Polity IV, 88, 92  
 Pollins, Brian, 190  
 Polo, Sara, 50  
 populism, 122  
 PopuList, 123  
 PostGIS, 150, 158, 159  
 Postico, 144  
 pre-registration, 6  
 primary key, 122, 129, 134  
 procedural programming, 119
- QGIS, 149, 165  
 quanteda package, 171, 176
- R**  
 code style, 21  
 console, 15  
 environment, 19  
 help, 18  
 packages, 18  
 script, 74  
 working directory, 17  
 random() SQL function, 138  
 raster data, 147  
 rbind() function, 28  
 read.csv() function, 43, 46, 48, 76, 78, 79, 192  
 read\_csv() function, 90  
 read\_delim() function, 90  
 read\_dta() function, 50  
 read\_excel() function, 49, 92  
 read\_sav() function, 51  
 readr package, 42  
 readRDS() function, 54  
 readtext package, 170  
 readtext() function, 171, 179  
 readxl package, 49, 92  
 referential integrity, 129  
 regexpr\_replace() SQL function, 180  
 regular expressions, 172, 179  
 relational integrity, 104, 206  
 reliability, 24  
 rename() function, 91  
 renv package, 19  
 replication, 8  
 research workflow, 4, 5  
 REVOKE SQL statement, 142  
 Richardson, Lewis Fry, 3  
 right\_join() function, 93  
 rm() function, 53  
 Robert, Margaret, 167  
 Robinson, James, 88  
 Rooduijn, Matthijs, 123  
 rowSums() function, 178  
 Rozenas, Arturas, 201  
 RPostgres package, 20, 107  
 RStudio, 15, 16, 78  
 RStudio project file, 17  
 runif() function, 89, 138  
 Russett, Bruce, 190
- sample() function, 138  
 save() function, 53  
 saveRDS() function, 54  
 Seim, Brigitte, 191  
 SELECT SQL statement, 112, 201, 202  
 select() function, 90, 92  
 sf package, 151  
 Shafranovich, Yakov, 48  
 Sigman, Rachel, 191  
 Skaaning, Svend-Erik, 191  
 slice() function, 90  
 SPSS, 51  
 SQL, 106  
 aggregation, 116, 161  
 data definition, 108  
 data extraction, 109  
 data manipulation, 109  
 data types, 108, 111, 130

- SQL (Cont.)  
 full text search, 181  
 grouping, 116  
 join, 125, 161, 201, 203  
 NULL values, 113, 128, 203  
 syntax, 108  
 text search query, 182  
 wildcard, 112
- SQL Server, 106
- `sqrt()` SQL function, 116
- `st_as_sf()` function, 153
- `st_contains()` SQL function, 161
- `st_geometry()` function, 153
- `st_join()` function, 156
- `st_point()` SQL function, 160
- `st_read()` function, 160, 162
- `st_setSRID()` SQL function, 160
- `st_write()` function, 160
- Stata, 50
- Staton, Jeffrey, 191
- stemming, 182
- Stepanova, Natalia, 191
- Stewart, Brandon, 167
- stopwords, 177, 182
- `str()` function, 78
- string quotation, 47
- string variable, 27
- Strong, Robert, 84
- structure (data), 25
- Sturm, Jan, 49
- subgraph, 195
- `subset()` function, 27, 29, 77, 78, 89, 192
- `substr()` function, 81, 172
- `sum()` SQL function, 117
- `summarize()` function, 94
- `summaryBy()` function, 32, 82, 83
- Sundberg, Ralph, 150
- Sundström, Aksel, 191
- `sys.time()` function, 138
- Taggart, Paul, 123
- Teorell, Jan, 191
- tibble, 91
- tibble package, 91
- tidyr package, 88
- tidytext package, 185
- `to_tsquery()` SQL function, 182
- `to_tsvector()` SQL function, 181, 182
- token (text data), 176, 182
- `tokens()` function, 177
- `tolower()` function, 78
- `topfeatures()` function, 178
- `data.frame$typeof()` function, 27
- Tzelgov, Eitan, 191
- UN General Debate, 169
- UN General Debate Speech Corpus, 169
- UN Sustainable Development Goals, 169, 183
- `ungroup()` function, 95, 97
- Unicode, 41, 70
- Unicode standard, 41
- UPDATE SQL statement, 160, 162
- USGS Data Lifecycle, 6
- `V()` function, 194
- validity, 24
- Van Kessel, Stijn, 123
- `var_label()` function, 51
- Varieties of Democracy, 5, 191
- vector data, 147
- version control system, 213
- vertex (graph), 187
- `vertex_attr()` function, 196
- von Römer, Johannes, 191
- Vreeland, James, 49
- Wang, Yi-ting, 191
- Ward, Michael, 201
- Wasser, Leah, 149
- `which.max()` function, 194
- Wickham, Hadley, 90
- wide table, 30, 97, 210
- Wig, Tore, 191
- Wilson, Steven, 191
- WITH SQL statement, 162, 203
- World Development Indicators, 4
- World Inequality Database, 75, 88
- Worlds of Journalism Study, 51
- `write.csv()` function, 47
- `write_dta()` function, 51
- `write_sav()` function, 52
- `writeln()` function, 173
- Ziblatt, Daniel, 191

