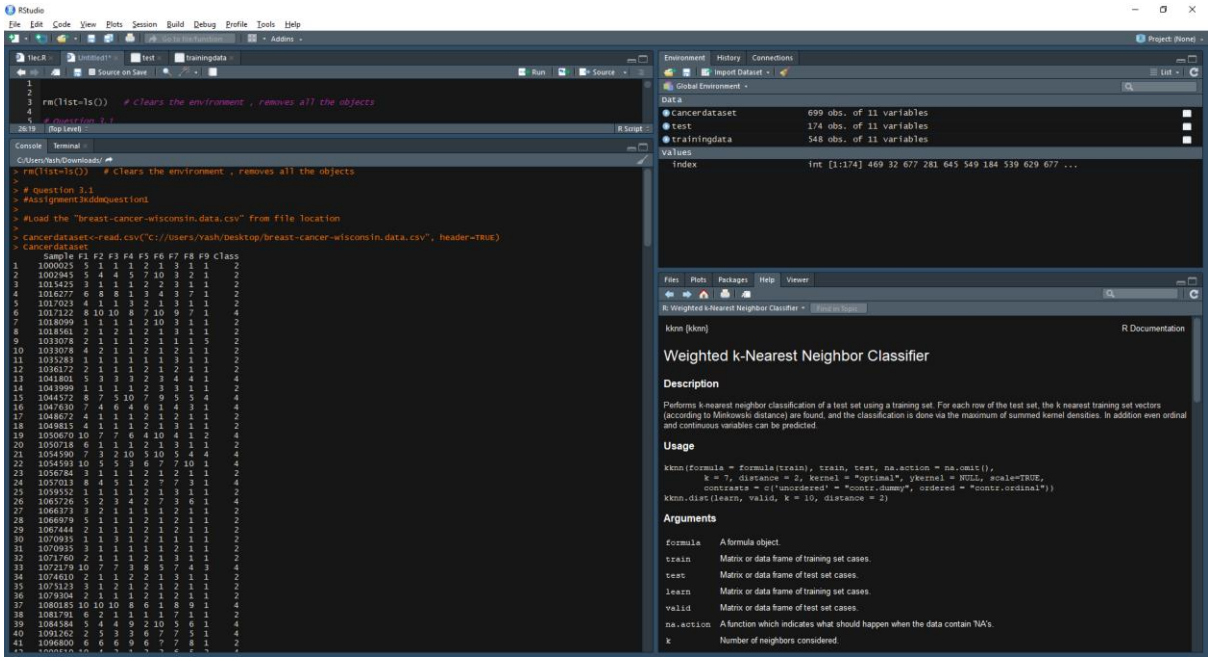
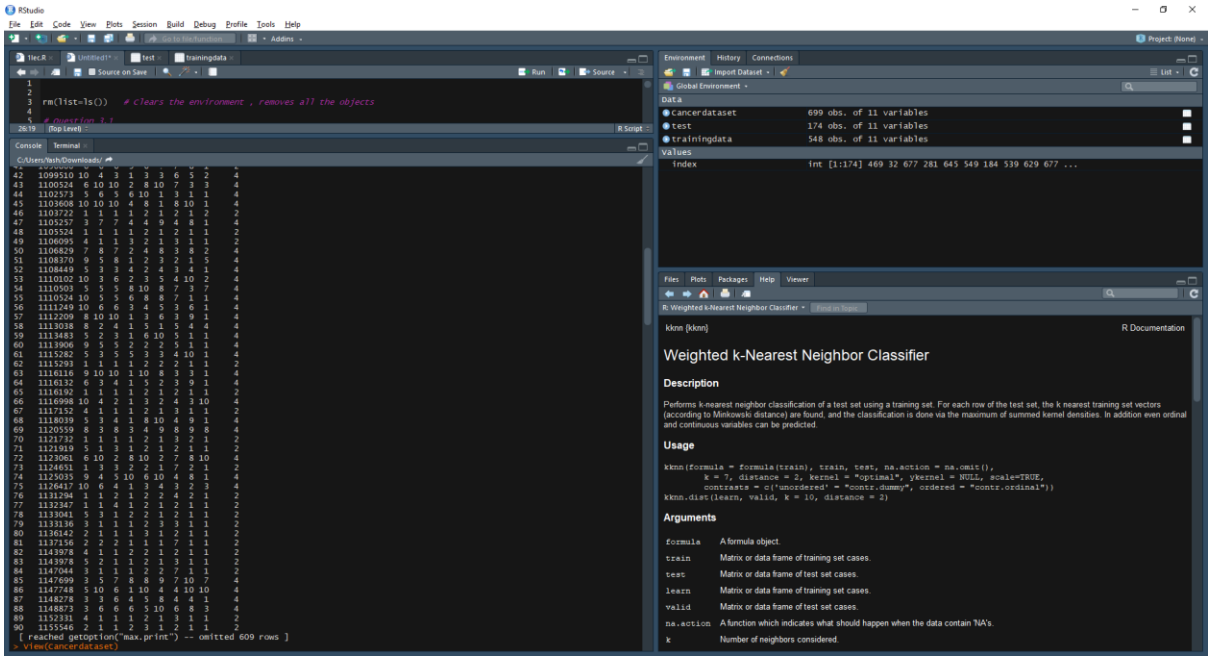
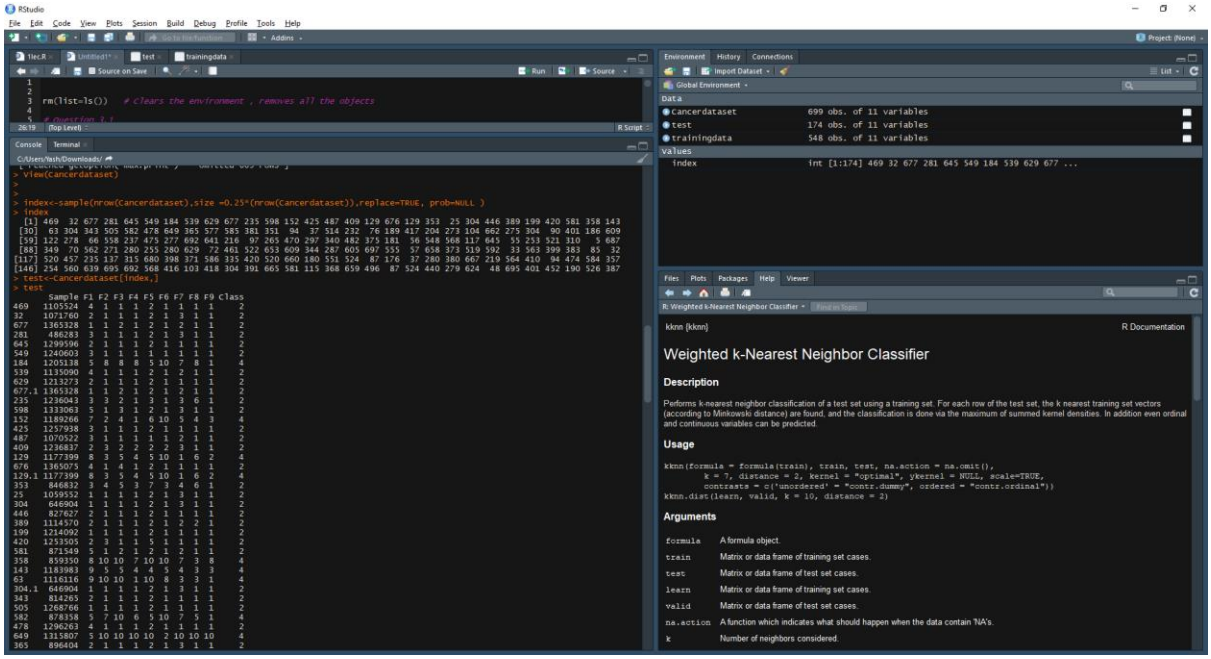
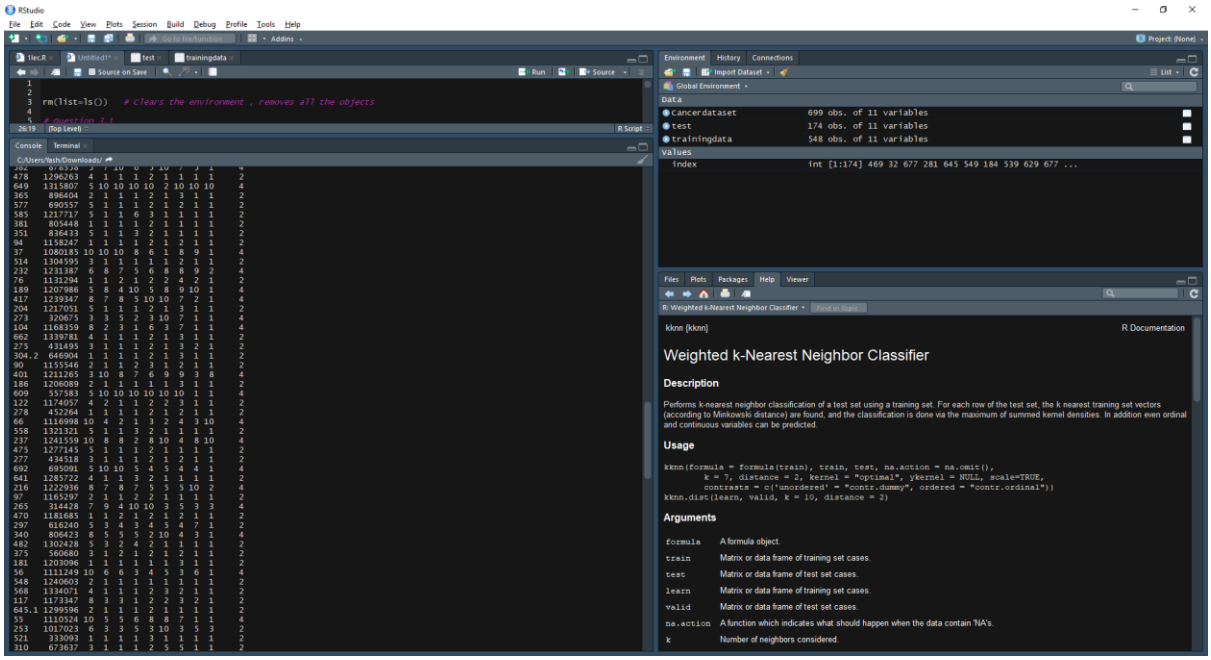
Result:


rm(list=ls()) # Clears the environment , removes all the objects
Question 3.1
#Assignment3kddmQuestion1
#Load the "breast-cancer-wisconsin.data.csv" from file location
cancerdataset<-read.csv("C://Users/Yash/Desktop/breast-cancer-wisconsin.data.csv", header=TRUE)
cancerdataset
Cancerdataset
test
trainingdata
Weighted k-Nearest Neighbor Classifier
Description
Usage
Arguments


rm(list=ls()) # Clears the environment , removes all the objects
Question 3.1
Cancerdataset
test
trainingdata
Weighted k-Nearest Neighbor Classifier
Description
Usage
Arguments


RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
rm(list=ls()) # Clears the environment , removes all the objects
Question 1.1
> View(Cancerdataset)
> index<-sample(nrow(Cancerdataset),size =0.25*(nrow(Cancerdataset)),replace=TRUE, prob=NULL)
> index
[1] 469 32 677 281 645 549 184 539 629 677 235 598 152 425 487 409 129 676 129 353 25 304 446 389 199 420 581 358 143
[30] 63 304 343 505 582 478 649 365 577 585 381 351 94 37 514 232 76 189 417 204 273 104 662 275 304 90 401 186 609
[59] 122 278 66 558 237 475 277 692 641 216 97 265 470 297 340 482 375 181 56 548 568 117 643 55 253 521 310 5 687
[88] 349 70 562 271 280 255 280 629 72 461 522 653 609 344 287 605 697 555 57 658 373 519 592 33 563 399 383 85 32
[117] 520 457 235 137 315 680 398 371 586 335 420 520 660 180 551 524 87 176 37 280 380 667 219 564 410 94 474 584 357
[146] 234 560 639 695 692 568 416 103 418 304 391 665 581 115 368 659 496 87 524 440 279 624 48 695 401 452 190 526 387
> test<-Cancerdataset[index,]
> test
Sample F1 F2 F3 F4 F5 F6 F7 F8 F9 Class
469 1105524 4 1 1 1 2 1 1 1 1 2
32 1071760 2 1 1 1 2 1 3 1 1 2
677 1365328 1 1 2 1 2 1 2 1 1 2
281 486283 3 1 1 1 2 1 3 1 1 2
645 1299596 2 1 1 1 2 1 1 1 1 2
549 1240603 3 1 1 1 1 1 1 1 1 2
184 1205138 5 8 8 8 5 10 7 8 1 4
539 1135090 4 1 1 1 2 1 2 1 1 2
629 1213273 2 1 1 1 2 1 1 1 1 2
677.1 1365328 1 1 2 1 2 1 2 1 1 2
235 1236043 3 3 2 1 3 1 3 6 1 2
598 1333063 5 1 3 1 2 1 3 1 1 2
152 1189266 7 2 4 1 6 10 5 4 3 4
425 1257938 3 1 1 1 2 1 1 1 1 2
487 1070522 3 1 1 1 1 1 2 1 1 2
409 1236837 2 3 2 2 2 2 3 1 1 2
129 1177399 8 3 5 4 5 10 1 6 2 4
676 1365075 4 1 4 1 2 1 1 1 1 2
129.1 1177399 8 3 5 4 5 10 1 6 2 4
353 846832 3 4 5 3 7 3 4 6 1 2
25 1059552 1 1 1 1 2 1 3 1 1 2
304 646904 1 1 1 1 2 1 3 1 1 2
446 827627 2 1 1 1 2 1 1 1 1 2
389 1114570 2 1 1 1 2 1 2 2 1 2
199 1214092 1 1 1 1 2 1 1 1 1 2
420 1253505 2 3 1 1 5 1 1 1 1 2
581 871549 5 1 2 1 2 1 2 1 1 2
358 859350 8 10 10 7 10 10 7 3 8 4
143 1183983 9 5 5 4 4 5 4 3 3 4
63 1116116 9 10 10 1 10 8 3 3 1 4
304.1 646904 1 1 1 1 2 1 3 1 1 2
343 814265 2 1 1 1 2 1 1 1 1 2
505 1268766 1 1 1 1 2 1 1 1 1 2
582 878358 5 7 10 6 5 10 7 5 1 4
478 1296263 4 1 1 1 2 1 1 1 1 2
649 1315807 5 10 10 10 10 10 2 10 10 4
365 896404 2 1 1 1 2 1 3 1 1 2
577 690557 5 1 1 1 2 1 2 1 1 2
585 1217717 5 1 1 6 3 1 1 1 1 2
381 805448 1 1 1 1 2 1 1 1 1 2
351 836433 5 1 1 3 2 1 1 1 1 2
94 1158247 1 1 1 1 2 1 2 1 1 2
37 1080185 10 10 10 8 6 1 8 9 1 4
514 1304595 3 1 1 1 1 1 2 1 1 2
232 1231387 6 8 7 5 6 8 8 9 2 4
76 1131294 1 1 2 1 2 2 4 2 1 2
189 1207986 5 8 4 10 5 8 9 10 1 4
417 1239347 8 7 8 5 10 10 7 2 1 4
204 1217051 5 1 1 1 2 1 3 1 1 2
273 320675 3 3 5 2 3 10 7 1 1 4
104 1168359 8 2 3 1 6 3 7 1 1 4
662 1339781 4 1 1 1 2 1 3 1 1 2
275 431495 3 1 1 1 2 1 3 2 1 2
304.2 646904 1 1 1 1 2 1 3 1 1 2
90 1155546 2 1 1 2 3 1 2 1 1 2
401 1211265 3 10 8 7 6 9 9 3 8 4
186 1206089 2 1 1 1 1 1 3 1 1 2
609 557583 5 10 10 10 10 10 10 1 1 4
122 1174057 4 2 1 1 2 2 3 1 1 2
278 452264 1 1 1 1 2 1 2 1 1 2
66 1116998 10 4 2 1 3 2 4 3 10 4
558 1321321 5 1 1 1 2 1 1 1 1 2
237 1241559 10 8 8 2 8 10 4 8 10 4
475 1277145 5 1 1 1 2 1 1 1 1 2
277 434518 3 1 1 1 2 1 2 1 1 2
692 695091 5 10 10 5 4 5 4 4 1 4
641 1285722 4 1 1 3 2 1 1 1 1 2
216 1222936 8 7 8 7 5 5 5 10 2 4
97 1165297 2 1 1 2 2 1 1 1 1 2
265 314428 7 9 4 10 10 3 5 3 3 4
470 1181685 1 1 2 1 2 1 2 1 1 2
297 616240 5 3 4 3 4 5 4 7 1 2
340 806423 8 5 5 5 2 10 4 3 1 4
482 1302428 3 3 2 4 2 1 1 1 1 2
375 560680 3 1 2 1 2 1 2 1 1 2
181 1203096 1 1 1 1 1 1 3 1 1 2
56 1111249 10 6 6 3 4 5 3 6 1 4
548 1240603 2 1 1 1 1 1 1 1 1 2
568 1334071 4 1 1 1 2 3 2 1 1 2
117 1173347 8 3 3 1 2 2 3 2 1 2
645.1 1299596 2 1 1 1 2 1 1 1 1 2
55 1110524 10 5 5 6 8 8 7 1 1 4
233 1017023 6 3 3 5 3 10 3 5 3 2
521 333093 1 1 1 1 2 1 3 1 1 2
310 673637 3 1 1 1 2 5 5 1 1 2
Environment History Connections
Import Dataset
Global Environment
Data
Cancerdataset 699 obs. of 11 variables
test 174 obs. of 11 variables
trainingdata 548 obs. of 11 variables
Values
index int [1:174] 469 32 677 281 645 549 184 539 629 677 ...
Files Plots Packages Help Viewer
R: Weighted k-Nearest Neighbor Classifier
kknn {kknn}
R Documentation
Weighted k-Nearest Neighbor Classifier
Description
Performs k-nearest neighbor classification of a test set using a training set. For each row of the test set, the k nearest training set vectors (according to Minkowski distance) are found, and the classification is done via the maximum of summed kernel densities. In addition even ordinal and continuous variables can be predicted.
Usage
kknn(formula = formula(train), train, test, na.action = na.omit(),
k = 7, distance = 2, kernel = "optimal", ykernel = NULL, scale=TRUE,
contrasts = c('unordered' = "contr.dummy", ordered = "contr.ordinal"))
kknn.dist(learn, valid, k = 10, distance = 2)
Arguments
formula A formula object.
train Matrix or data frame of training set cases.
test Matrix or data frame of test set cases.
learn Matrix or data frame of training set cases.
valid Matrix or data frame of test set cases.
na.action A function which indicates what should happen when the data contain 'NA's.
k Number of neighbors considered.


RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
rm(list=ls()) # Clears the environment , removes all the objects
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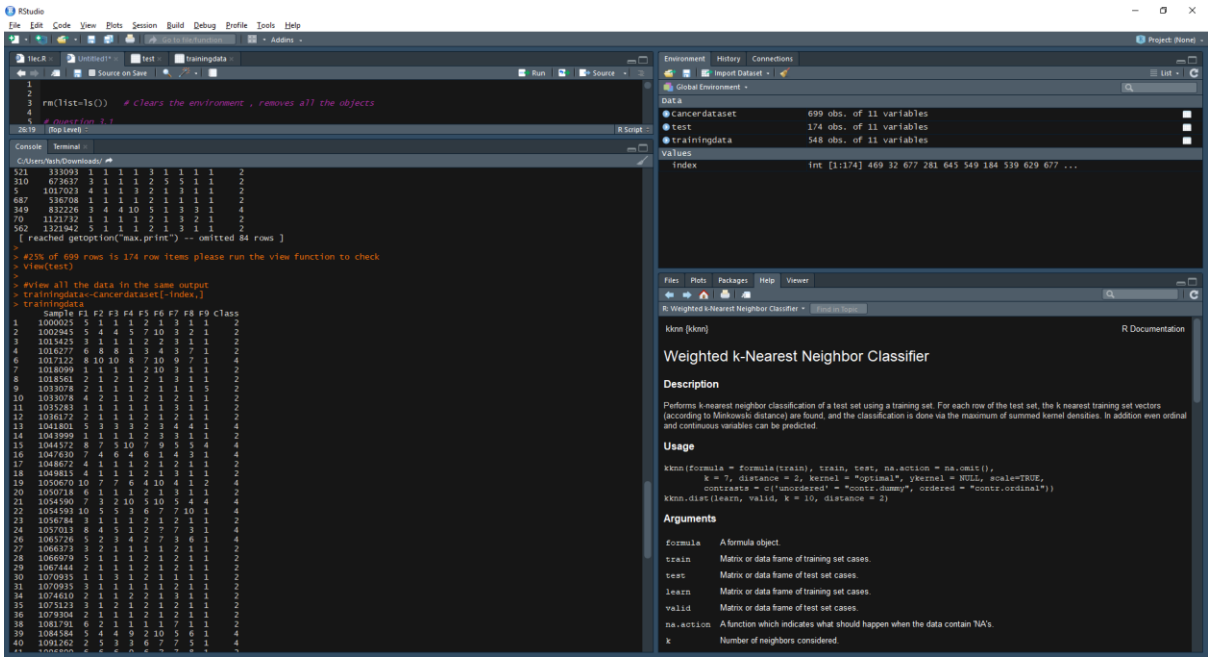
RStudio
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Question 1.1
Console Terminal
C:/Users/Yash/Downloads/
> #25% of 699 rows is 174 row items please run the view function to check
> View(test)
> #view all the data in the same output
> trainingdata<-Cancerdataset[-index,]
> trainingdata
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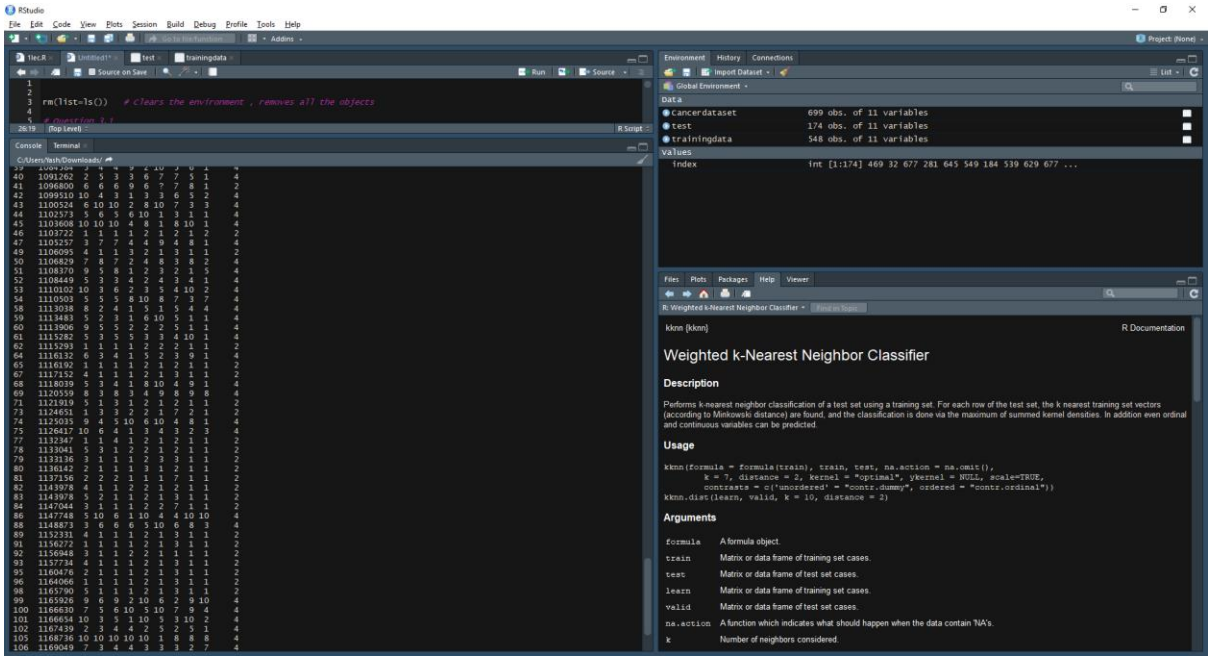
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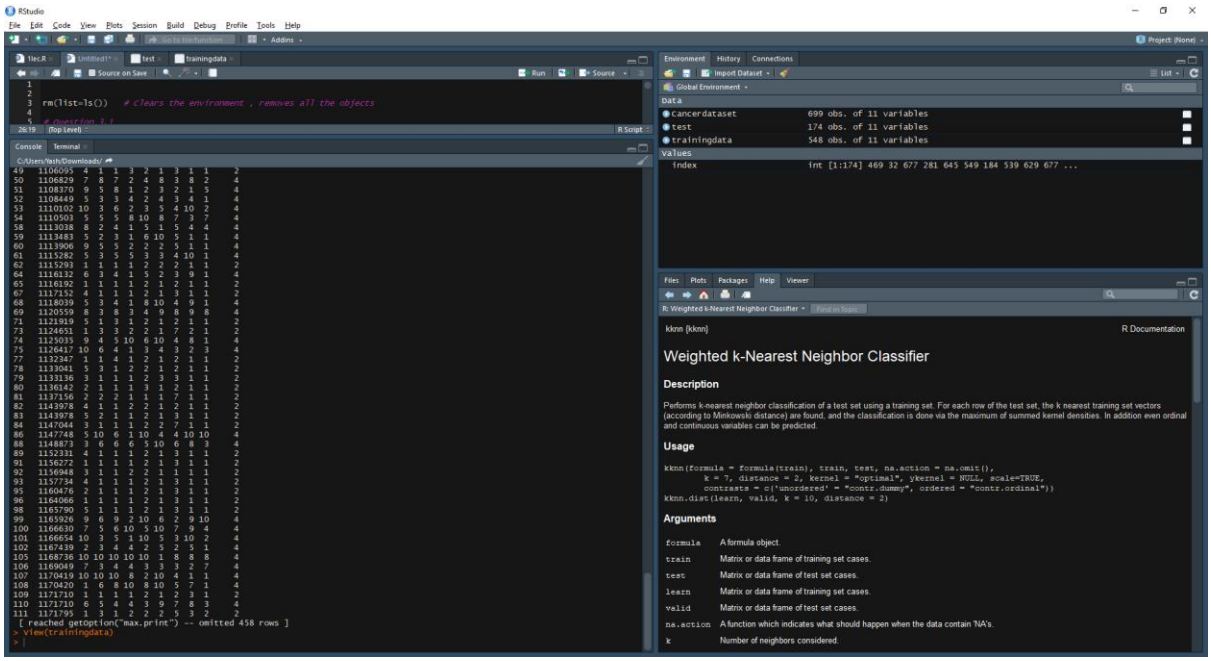
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[reached getOption("max.print") -- omitted 458 rows]
> View(trainingdata)