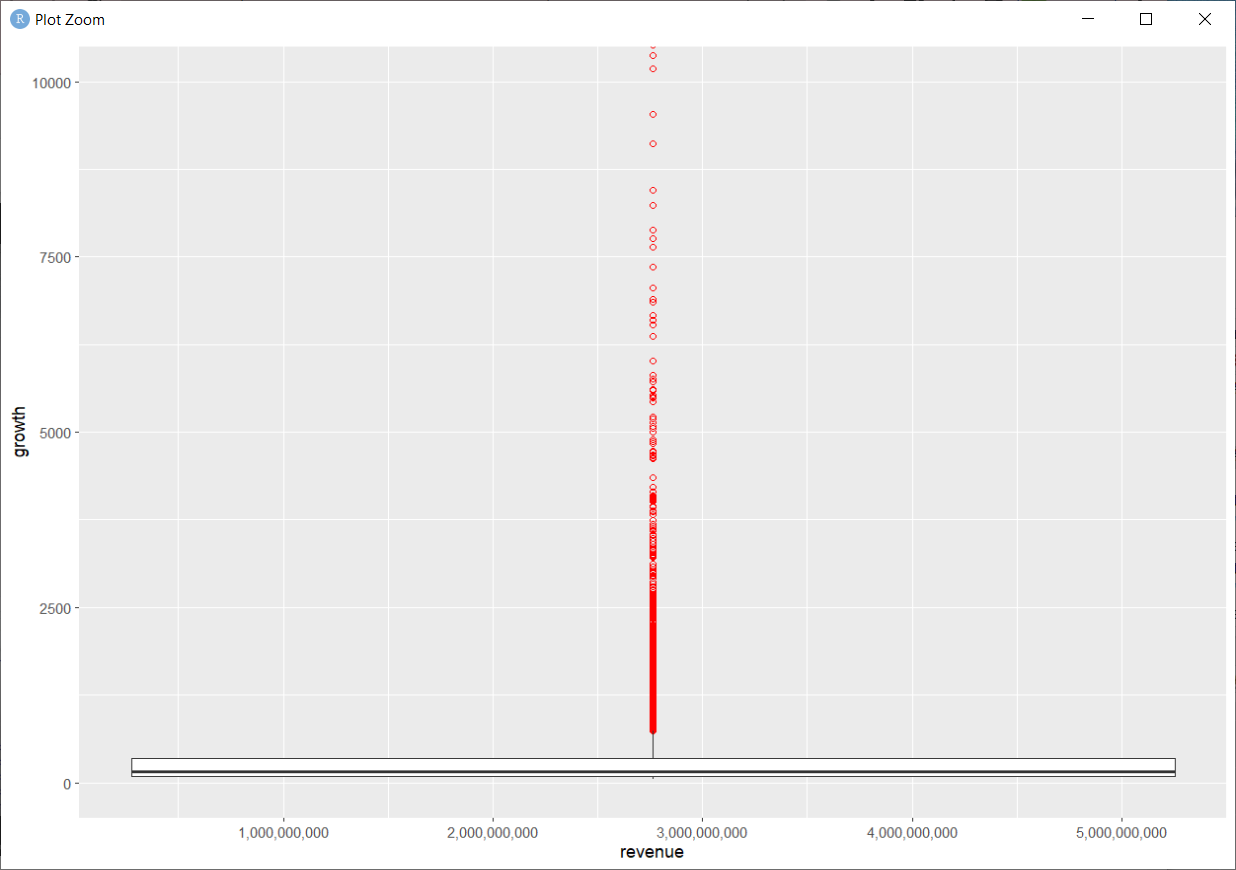
> drops <-df[,!(names(df) %in% drops)]  
> str(df)#check datatypes   
'data.frame': 5000 obs. of 19 variables:  
 $ X\_input : logi NA NA NA NA NA NA ...  
 $ X\_num : int 1 2 3 4 5 6 7 8 9 10 ...  
 $ X\_widgetName : chr "Inc5000 Company List" "Inc5000 Company List" "Inc5000 Company List" "Inc5000 Company List" ...  
 $ X\_source : chr "Inc5000 Company List" "Inc5000 Company List" "Inc5000 Company List" "Inc5000 Company List" ...  
 $ X\_resultNumber: int 1 2 3 4 5 6 7 8 9 10 ...  
 $ X\_pageUrl : chr "http://www.inc.com/inc5000list/json/inc5000\_2014.json" "http://www.inc.com/inc5000list/json/inc5000\_2014.json" "http://www.inc.com/inc5000list/json/inc5000\_2014.json" "http://www.inc.com/inc5000list/json/inc5000\_2014.json" ...  
 $ id : int 22890 25747 25643 26098 26182 22913 22937 25413 26079 25861 ...  
 $ rank : int 1 2 3 4 5 6 7 8 9 10 ...  
 $ workers : int 227 191 145 62 92 50 129 130 264 11 ...  
 $ company : chr "Fuhu" "Quest Nutrition" "Reliant Asset Management" "Superfish" ...  
 $ url : chr "fuhu" "quest-nutrition" "reliant-asset-management" "superfish" ...  
 $ state\_l : chr "California" "California" "Virginia" "California" ...  
 $ state\_s : chr "CA" "CA" "VA" "CA" ...  
 $ city : chr "El Segundo" "El Segundo" "Arlington" "Palo Alto" ...  
 $ metro : chr "Los Angeles" "Los Angeles" "Washington DC" "San Jose" ...  
 $ growth : num 158957 57348 55460 26043 20690 ...  
 $ revenue : num 1.96e+08 8.26e+07 8.51e+07 3.53e+07 7.77e+07 …

> #round of to 2 decimal places   
> df$growth <-round(df$growth, digit=2)  
> #check outliers  
> install.packages("tidyverse") #one time process  
WARNING: Rtools is required to build R packages but is not currently installed. Please download and install the appropriate version of Rtools before proceeding:  
  
https://cran.rstudio.com/bin/windows/Rtools/  
Installing package into ‘C:/Users/YAW/AppData/Local/R/win-library/4.3’  
(as ‘lib’ is unspecified)  
also installing the dependencies ‘colorspace’, ‘sys’, ‘ps’, ‘base64enc’, ‘sass’, ‘digest’, ‘farver’, ‘labeling’, ‘munsell’, ‘RColorBrewer’, ‘viridisLite’, ‘rappdirs’, ‘askpass’, ‘processx’, ‘evaluate’, ‘highr’, ‘xfun’, ‘yaml’, ‘bslib’, ‘fontawesome’, ‘htmltools’, ‘jquerylib’, ‘tinytex’, ‘backports’, ‘ellipsis’, ‘generics’, ‘data.table’, ‘gtable’, ‘isoband’, ‘scales’, ‘gargle’, ‘uuid’, ‘curl’, ‘ids’, ‘rematch2’, ‘mime’, ‘openssl’, ‘timechange’, ‘systemfonts’, ‘textshaping’, ‘callr’, ‘fs’, ‘knitr’, ‘rmarkdown’, ‘selectr’, ‘stringi’, ‘broom’, ‘conflicted’, ‘dbplyr’, ‘dplyr’, ‘dtplyr’, ‘forcats’, ‘ggplot2’, ‘googledrive’, ‘googlesheets4’, ‘haven’, ‘httr’, ‘jsonlite’, ‘lubridate’, ‘modelr’, ‘purrr’, ‘ragg’, ‘reprex’, ‘rstudioapi’, ‘rvest’, ‘stringr’, ‘tidyr’, ‘xml2’  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/colorspace\_2.1-0.zip'  
Content type 'application/zip' length 2633469 bytes (2.5 MB)  
downloaded 2.5 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/sys\_3.4.2.zip'  
Content type 'application/zip' length 47071 bytes (45 KB)  
downloaded 45 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/ps\_1.7.5.zip'  
Content type 'application/zip' length 553183 bytes (540 KB)  
downloaded 540 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/base64enc\_0.1-3.zip'  
Content type 'application/zip' length 32637 bytes (31 KB)  
downloaded 31 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/sass\_0.4.7.zip'  
Content type 'application/zip' length 2595774 bytes (2.5 MB)  
downloaded 2.5 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/digest\_0.6.33.zip'  
Content type 'application/zip' length 206260 bytes (201 KB)  
downloaded 201 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/farver\_2.1.1.zip'  
Content type 'application/zip' length 1505004 bytes (1.4 MB)  
downloaded 1.4 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/labeling\_0.4.3.zip'  
Content type 'application/zip' length 62603 bytes (61 KB)  
downloaded 61 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/munsell\_0.5.0.zip'  
Content type 'application/zip' length 244598 bytes (238 KB)  
downloaded 238 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/RColorBrewer\_1.1-3.zip'  
Content type 'application/zip' length 55876 bytes (54 KB)  
downloaded 54 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/viridisLite\_0.4.2.zip'  
Content type 'application/zip' length 1300086 bytes (1.2 MB)  
downloaded 1.2 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/rappdirs\_0.3.3.zip'  
Content type 'application/zip' length 51343 bytes (50 KB)  
downloaded 50 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/askpass\_1.2.0.zip'  
Content type 'application/zip' length 74939 bytes (73 KB)  
downloaded 73 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/processx\_3.8.2.zip'  
Content type 'application/zip' length 686278 bytes (670 KB)  
downloaded 670 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/evaluate\_0.21.zip'  
Content type 'application/zip' length 83048 bytes (81 KB)  
downloaded 81 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/highr\_0.10.zip'  
Content type 'application/zip' length 46573 bytes (45 KB)  
downloaded 45 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/xfun\_0.40.zip'  
Content type 'application/zip' length 435782 bytes (425 KB)  
downloaded 425 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/yaml\_2.3.7.zip'  
Content type 'application/zip' length 115669 bytes (112 KB)  
downloaded 112 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/bslib\_0.5.1.zip'  
Content type 'application/zip' length 6164055 bytes (5.9 MB)  
downloaded 5.9 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/fontawesome\_0.5.2.zip'  
Content type 'application/zip' length 1358153 bytes (1.3 MB)  
downloaded 1.3 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/htmltools\_0.5.6.zip'  
Content type 'application/zip' length 355899 bytes (347 KB)  
downloaded 347 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/jquerylib\_0.1.4.zip'  
Content type 'application/zip' length 526007 bytes (513 KB)  
downloaded 513 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/tinytex\_0.46.zip'  
Content type 'application/zip' length 136551 bytes (133 KB)  
downloaded 133 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/backports\_1.4.1.zip'  
Content type 'application/zip' length 101437 bytes (99 KB)  
downloaded 99 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/ellipsis\_0.3.2.zip'  
Content type 'application/zip' length 40546 bytes (39 KB)  
downloaded 39 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/generics\_0.1.3.zip'  
Content type 'application/zip' length 79507 bytes (77 KB)  
downloaded 77 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/data.table\_1.14.8.zip'  
Content type 'application/zip' length 2289385 bytes (2.2 MB)  
downloaded 2.2 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/gtable\_0.3.4.zip'  
Content type 'application/zip' length 225826 bytes (220 KB)  
downloaded 220 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/isoband\_0.2.7.zip'  
Content type 'application/zip' length 1968158 bytes (1.9 MB)  
downloaded 1.9 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/scales\_1.2.1.zip'  
Content type 'application/zip' length 614844 bytes (600 KB)  
downloaded 600 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/gargle\_1.5.2.zip'  
Content type 'application/zip' length 792553 bytes (773 KB)  
downloaded 773 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/uuid\_1.1-1.zip'  
Content type 'application/zip' length 50117 bytes (48 KB)  
downloaded 48 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/curl\_5.0.2.zip'  
Content type 'application/zip' length 2655142 bytes (2.5 MB)  
downloaded 2.5 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/ids\_1.0.1.zip'  
Content type 'application/zip' length 123911 bytes (121 KB)  
downloaded 121 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/rematch2\_2.1.2.zip'  
Content type 'application/zip' length 47510 bytes (46 KB)  
downloaded 46 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/mime\_0.12.zip'  
Content type 'application/zip' length 40809 bytes (39 KB)  
downloaded 39 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/openssl\_2.1.0.zip'  
Content type 'application/zip' length 3178259 bytes (3.0 MB)  
downloaded 3.0 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/timechange\_0.2.0.zip'  
Content type 'application/zip' length 504400 bytes (492 KB)  
downloaded 492 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/systemfonts\_1.0.4.zip'  
Content type 'application/zip' length 1032642 bytes (1008 KB)  
downloaded 1008 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/textshaping\_0.3.6.zip'  
Content type 'application/zip' length 1015761 bytes (991 KB)  
downloaded 991 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/callr\_3.7.3.zip'  
Content type 'application/zip' length 440143 bytes (429 KB)  
downloaded 429 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/fs\_1.6.3.zip'  
Content type 'application/zip' length 392679 bytes (383 KB)  
downloaded 383 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/knitr\_1.43.zip'  
Content type 'application/zip' length 1505195 bytes (1.4 MB)  
downloaded 1.4 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/rmarkdown\_2.24.zip'  
Content type 'application/zip' length 2673945 bytes (2.6 MB)  
downloaded 2.6 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/selectr\_0.4-2.zip'  
Content type 'application/zip' length 492624 bytes (481 KB)  
downloaded 481 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/stringi\_1.7.12.zip'  
Content type 'application/zip' length 14216005 bytes (13.6 MB)  
downloaded 13.6 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/broom\_1.0.5.zip'  
Content type 'application/zip' length 1863177 bytes (1.8 MB)  
downloaded 1.8 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/conflicted\_1.2.0.zip'  
Content type 'application/zip' length 57390 bytes (56 KB)  
downloaded 56 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/dbplyr\_2.3.3.zip'  
Content type 'application/zip' length 1143787 bytes (1.1 MB)  
downloaded 1.1 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/dplyr\_1.1.3.zip'  
Content type 'application/zip' length 1553555 bytes (1.5 MB)  
downloaded 1.5 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/dtplyr\_1.3.1.zip'  
Content type 'application/zip' length 353128 bytes (344 KB)  
downloaded 344 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/forcats\_1.0.0.zip'  
Content type 'application/zip' length 428265 bytes (418 KB)  
downloaded 418 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/ggplot2\_3.4.3.zip'  
Content type 'application/zip' length 3328856 bytes (3.2 MB)  
downloaded 3.2 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/googledrive\_2.1.1.zip'  
Content type 'application/zip' length 1896364 bytes (1.8 MB)  
downloaded 1.8 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/googlesheets4\_1.1.1.zip'  
Content type 'application/zip' length 513158 bytes (501 KB)  
downloaded 501 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/haven\_2.5.3.zip'  
Content type 'application/zip' length 763026 bytes (745 KB)  
downloaded 745 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/httr\_1.4.7.zip'  
Content type 'application/zip' length 485390 bytes (474 KB)  
downloaded 474 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/jsonlite\_1.8.7.zip'  
Content type 'application/zip' length 1105586 bytes (1.1 MB)  
downloaded 1.1 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/lubridate\_1.9.2.zip'  
Content type 'application/zip' length 982790 bytes (959 KB)  
downloaded 959 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/modelr\_0.1.11.zip'  
Content type 'application/zip' length 202720 bytes (197 KB)  
downloaded 197 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/purrr\_1.0.2.zip'  
Content type 'application/zip' length 498804 bytes (487 KB)  
downloaded 487 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/ragg\_1.2.5.zip'  
Content type 'application/zip' length 1305690 bytes (1.2 MB)  
downloaded 1.2 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/reprex\_2.0.2.zip'  
Content type 'application/zip' length 505224 bytes (493 KB)  
downloaded 493 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/rstudioapi\_0.15.0.zip'  
Content type 'application/zip' length 318632 bytes (311 KB)  
downloaded 311 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/rvest\_1.0.3.zip'  
Content type 'application/zip' length 219035 bytes (213 KB)  
downloaded 213 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/stringr\_1.5.0.zip'  
Content type 'application/zip' length 318404 bytes (310 KB)  
downloaded 310 KB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/tidyr\_1.3.0.zip'  
Content type 'application/zip' length 1279877 bytes (1.2 MB)  
downloaded 1.2 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/xml2\_1.3.5.zip'  
Content type 'application/zip' length 1558845 bytes (1.5 MB)  
downloaded 1.5 MB  
  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/tidyverse\_2.0.0.zip'  
Content type 'application/zip' length 430916 bytes (420 KB)  
downloaded 420 KB  
  
package ‘colorspace’ successfully unpacked and MD5 sums checked  
package ‘sys’ successfully unpacked and MD5 sums checked  
package ‘ps’ successfully unpacked and MD5 sums checked  
package ‘base64enc’ successfully unpacked and MD5 sums checked  
package ‘sass’ successfully unpacked and MD5 sums checked  
package ‘digest’ successfully unpacked and MD5 sums checked  
package ‘farver’ successfully unpacked and MD5 sums checked  
package ‘labeling’ successfully unpacked and MD5 sums checked  
package ‘munsell’ successfully unpacked and MD5 sums checked  
package ‘RColorBrewer’ successfully unpacked and MD5 sums checked  
package ‘viridisLite’ successfully unpacked and MD5 sums checked  
package ‘rappdirs’ successfully unpacked and MD5 sums checked  
package ‘askpass’ successfully unpacked and MD5 sums checked  
package ‘processx’ successfully unpacked and MD5 sums checked  
package ‘evaluate’ successfully unpacked and MD5 sums checked  
package ‘highr’ successfully unpacked and MD5 sums checked  
package ‘xfun’ successfully unpacked and MD5 sums checked  
package ‘yaml’ successfully unpacked and MD5 sums checked  
package ‘bslib’ successfully unpacked and MD5 sums checked  
package ‘fontawesome’ successfully unpacked and MD5 sums checked  
package ‘htmltools’ successfully unpacked and MD5 sums checked  
package ‘jquerylib’ successfully unpacked and MD5 sums checked  
package ‘tinytex’ successfully unpacked and MD5 sums checked  
package ‘backports’ successfully unpacked and MD5 sums checked  
package ‘ellipsis’ successfully unpacked and MD5 sums checked  
package ‘generics’ successfully unpacked and MD5 sums checked  
package ‘data.table’ successfully unpacked and MD5 sums checked  
package ‘gtable’ successfully unpacked and MD5 sums checked  
package ‘isoband’ successfully unpacked and MD5 sums checked  
package ‘scales’ successfully unpacked and MD5 sums checked  
package ‘gargle’ successfully unpacked and MD5 sums checked  
package ‘uuid’ successfully unpacked and MD5 sums checked  
package ‘curl’ successfully unpacked and MD5 sums checked  
package ‘ids’ successfully unpacked and MD5 sums checked  
package ‘rematch2’ successfully unpacked and MD5 sums checked  
package ‘mime’ successfully unpacked and MD5 sums checked  
package ‘openssl’ successfully unpacked and MD5 sums checked  
package ‘timechange’ successfully unpacked and MD5 sums checked  
package ‘systemfonts’ successfully unpacked and MD5 sums checked  
package ‘textshaping’ successfully unpacked and MD5 sums checked  
package ‘callr’ successfully unpacked and MD5 sums checked  
package ‘fs’ successfully unpacked and MD5 sums checked  
package ‘knitr’ successfully unpacked and MD5 sums checked  
package ‘rmarkdown’ successfully unpacked and MD5 sums checked  
package ‘selectr’ successfully unpacked and MD5 sums checked  
package ‘stringi’ successfully unpacked and MD5 sums checked  
package ‘broom’ successfully unpacked and MD5 sums checked  
package ‘conflicted’ successfully unpacked and MD5 sums checked  
package ‘dbplyr’ successfully unpacked and MD5 sums checked  
package ‘dplyr’ successfully unpacked and MD5 sums checked  
package ‘dtplyr’ successfully unpacked and MD5 sums checked  
package ‘forcats’ successfully unpacked and MD5 sums checked  
package ‘ggplot2’ successfully unpacked and MD5 sums checked  
package ‘googledrive’ successfully unpacked and MD5 sums checked  
package ‘googlesheets4’ successfully unpacked and MD5 sums checked  
package ‘haven’ successfully unpacked and MD5 sums checked  
package ‘httr’ successfully unpacked and MD5 sums checked  
package ‘jsonlite’ successfully unpacked and MD5 sums checked  
package ‘lubridate’ successfully unpacked and MD5 sums checked  
package ‘modelr’ successfully unpacked and MD5 sums checked  
package ‘purrr’ successfully unpacked and MD5 sums checked  
package ‘ragg’ successfully unpacked and MD5 sums checked  
package ‘reprex’ successfully unpacked and MD5 sums checked  
package ‘rstudioapi’ successfully unpacked and MD5 sums checked  
package ‘rvest’ successfully unpacked and MD5 sums checked  
package ‘stringr’ successfully unpacked and MD5 sums checked  
package ‘tidyr’ successfully unpacked and MD5 sums checked  
package ‘xml2’ successfully unpacked and MD5 sums checked  
package ‘tidyverse’ successfully unpacked and MD5 sums checked  
  
The downloaded binary packages are in  
 C:\Users\YAW\AppData\Local\Temp\RtmpquBtjA\downloaded\_packages  
> library(ggplot2  
+   
+ #check outliers  
+ install.packages("tidyverse") #one time process  
Error: unexpected symbol in:  
"#check outliers  
install.packages"  
> c  
function (...) .Primitive("c")  
> #checkoutliers  
> install.packages("tidyverse") #one time process  
WARNING: Rtools is required to build R packages but is not currently installed. Please download and install the appropriate version of Rtools before proceeding:  
  
https://cran.rstudio.com/bin/windows/Rtools/  
Installing package into ‘C:/Users/YAW/AppData/Local/R/win-library/4.3’  
(as ‘lib’ is unspecified)  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.3/tidyverse\_2.0.0.zip'  
Content type 'application/zip' length 430916 bytes (420 KB)  
downloaded 420 KB  
  
package ‘tidyverse’ successfully unpacked and MD5 sums checked  
  
The downloaded binary packages are in  
 C:\Users\YAW\AppData\Local\Temp\RtmpquBtjA\downloaded\_packages  
> library(ggplot2)  
> ggplot(df,aes(x=revenue,y=growth))+  
+ geom\_boxplot(outlier.colour = "red",outlier.shape= 1)+  
+ scale\_x\_continuous(labels=scales::comma)+coord\_cartesian(ylim=c(0,10000))  
Warning message:  
Continuous x aesthetic  
ℹ did you forget `aes(group = ...)`?   
> ggplot(df,aes(x=revenue,y=growth))+  
+ geom\_boxplot(outlier.colour = "red",outlier.shape= 1)+  
+ scale\_x\_continuous(labels=scales::comma)+coord\_cartesian(ylim=c(0,10000))  
Warning message:  
Continuous x aesthetic  
ℹ did you forget `aes(group



#display dataframe  
> View(df)  
>   
> #size   
> dim(df)  
[1] 5000 19  
>   
> #check datatypes  
> str(df)  
'data.frame': 5000 obs. of 19 variables:  
 $ X\_input : logi NA NA NA NA NA NA ...  
 $ X\_num : int 1 2 3 4 5 6 7 8 9 10 ...  
 $ X\_widgetName : chr "Inc5000 Company List" "Inc5000 Company List" "Inc5000 Company List" "Inc5000 Company List" ...  
 $ X\_source : chr "Inc5000 Company List" "Inc5000 Company List" "Inc5000 Company List" "Inc5000 Company List" ...  
 $ X\_resultNumber: int 1 2 3 4 5 6 7 8 9 10 ...  
 $ X\_pageUrl : chr "http://www.inc.com/inc5000list/json/inc5000\_2014.json" "http://www.inc.com/inc5000list/json/inc5000\_2014.json" "http://www.inc.com/inc5000list/json/inc5000\_2014.json" "http://www.inc.com/inc5000list/json/inc5000\_2014.json" ...  
 $ id : int 22890 25747 25643 26098 26182 22913 22937 25413 26079 25861 ...  
 $ rank : int 1 2 3 4 5 6 7 8 9 10 ...  
 $ workers : int 227 191 145 62 92 50 129 130 264 11 ...  
 $ company : chr "Fuhu" "Quest Nutrition" "Reliant Asset Management" "Superfish" ...  
 $ url : chr "fuhu" "quest-nutrition" "reliant-asset-management" "superfish" ...  
 $ state\_l : chr "California" "California" "Virginia" "California" ...  
 $ state\_s : chr "CA" "CA" "VA" "CA" ...  
 $ city : chr "El Segundo" "El Segundo" "Arlington" "Palo Alto" ...  
 $ metro : chr "Los Angeles" "Los Angeles" "Washington DC" "San Jose" ...  
 $ growth : num 158957 57348 55460 26043 20690 ...  
 $ revenue : num 1.96e+08 8.26e+07 8.51e+07 3.53e+07 7.77e+07 ...  
 $ industry : chr "Consumer Products & Services" "Food & Beverage" "Business Products & Services" "Software" ...  
 $ yrs\_on\_list : int 2 1 1 1 1 2 2 1 1 1 ...  
>   
> #Check for missing values  
> colSums(is.na(df))  
 X\_input X\_num X\_widgetName X\_source   
 5000 0 0 0   
X\_resultNumber X\_pageUrl id rank   
 0 0 0 0   
 workers company url state\_l   
 0 0 0 0   
 state\_s city metro growth   
 0 0 0 0   
 revenue industry yrs\_on\_list   
 0 0 0   
>   
> #drop null values http://127.0.0.1:8475/graphics/9b3c4413-a583-4543-9665-0daf6f846ea9.png  
> df<- na.omit(df) #it will delete all rows  
> df <-read.csv ("C:?User/alber/Downloads/Data Set- Inc5000 Company List\_201