|  |
| --- |
| > interns <- read.csv("trainfiles/Internship/Internship.csv")  > student <- read.csv("trainfiles/Student/Student.csv")  > train <- read.csv("trainfiles/traincsv/train.csv")  > test <- read.csv("test-date-your-data/test.csv")  > library(sqldf)  > student1 <- student  > student1$S\_Date <- student1$Start.Date  > student1$E\_Date <- student1$End.Date  > student1$Num\_Exp <- 1  > student2 <- sqldf("select Student\_ID, Institute\_Category, Institute\_location ,hometown ,Degree,  + Stream, Current\_year, Year\_of\_graduation, Performance\_PG, PG\_scale,  + Performance\_UG, UG\_Scale, Performance\_12th, Performance\_10th, Experience\_Type,  + Profile, Location, S\_Date, E\_Date, SUM(Num\_Exp) as Num\_Exp\_Row From student1 Group BY Student\_ID")  > # Converting S\_Date, E\_Date to date class  > S\_Date <- as.Date(student2$S\_Date, "%d-%m-%Y")  > E\_Date <- as.Date(student2$E\_Date, "%d-%m-%Y")  > student2$S\_Date <- S\_Date  > student2$E\_Date <- E\_Date  > # tagging train and test data  > train1 <- train  > train1$tag <- "train"  > test1 <- test  > test1$tag <- "test"  > #Combining train and test  > test1$Is\_Shortlisted <- 0  > data <- rbind(train1,test1)  > data1 <- merge(data,student2,by="Student\_ID",all.x=TRUE)  > interns1 <- interns[,c(1:13)]  > data2 <- merge(data1,interns1, by="Internship\_ID", all.x=TRUE)  > ESD <- data2$Earliest\_Start\_Date  > ESD1 <- gsub('/','-',ESD)  > ESD2 <- as.Date(ESD1, "%d-%m-%Y")  > data2$Earliest\_Start\_Date <- ESD2  > ## Converting "Start\_Date" to Date class  > Start\_Date <- data2$Start\_Date  > Start\_Date <- as.Date(Start\_Date,"%d-%m-%Y")  > data2$Start\_Date <- Start\_Date  > ## Class balance  > table(train$Is\_Shortlisted)  0 1  168003 24579  > ## Converting to factor variables Degree ,Stream , Profile  > data2$Degree <- as.factor(data2$Degree)  > data2$Stream <- as.factor(data2$Stream)  > data2$Profile <-as.factor(data2$Profile)  > data3 <- data2  > # missing value treatment of data3$Preferred\_location  > # Lets tag it as No\_Pref and create a feature to tag it  > data3$Preferred\_location <- as.character(data3$Preferred\_location)  > data3$Preferred\_location <- ifelse(data3$Preferred\_location=="","No\_Pref",data3$Preferred\_location)  > data3$Preferred\_location <- as.factor(data3$Preferred\_location)  > # substituting NA values of Degree with most common category  > data3$Degree <- as.character(data3$Degree)  > data3$Degree <- ifelse(is.na(data3$Degree) & data3$Stream=="Management", "MBA",data3$Degree)  > data3$Degree <- ifelse(is.na(data3$Degree) & data3$Stream=="Fashion Lifestyle Business Management", "MBA",data3$Degree)  > data3$Degree <- ifelse(is.na(data3$Degree) & data3$Stream=="Commence", "B.Com",data3$Degree)  > data3$Degree <- ifelse(is.na(data3$Degree) & data3$Stream=="Commerce", "B.Com",data3$Degree)  > data3$Degree <- ifelse(is.na(data3$Degree) & data3$Internship\_Profile=="Design", "Designing",data3$Degree)  > data3$Degree <- ifelse(is.na(data3$Degree) & data3$Internship\_Profile=="Social Media Marketing", "Digital Marketing",data3$Degree)  > data3$Degree <- ifelse(is.na(data3$Degree) & data3$Internship\_Profile=="Graphic Design", "Graphic Design",data3$Degree)  > data3$Degree <- ifelse(is.na(data3$Degree) & data3$Internship\_Profile=="Digital Marketing", "Digital Marketing",data3$Degree)  > data3$Degree <- ifelse(is.na(data3$Degree) & data3$Internship\_Profile=="Illustration", "B.A.(Hons) Journalism",data3$Degree)  > data3$Degree <- ifelse(is.na(data3$Degree) & data3$Internship\_Profile=="Google Ad Word Management", "MBA",data3$Degree)  > data3$Degree <- ifelse(is.na(data3$Degree) & data3$Internship\_Profile=="Operations- Quality Analyst", "Global Business Operations (GBO)",data3$Degree)  > data3$Degree <- as.factor(data3$Degree)  > # substituting NA values of Stream  > data3$Stream <- as.character(data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="Designing", "Accessory Designing",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="MCA", "Computer Application",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="Post Graduate Dimploma in Management", "Marketing",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="MBA", "Marketing",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="B.Com (Hons.)", "Accountancy And Finance",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="Graphic Design", "Visual Comm",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="Bachelor of Business Admininstration", "Management",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="Digital Marketing", "Commerce",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="B.M.M.", "Arts",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="BCA", "Computer Application",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="Global Business Operations (GBO)", "Finance",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="B.A.LL.B. (Hons.)", "Law",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="Under", "Under",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="B.A. Programme", "Arts",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="B.Sc (Hons.) Computer Science", "Science",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="B.S. & M.S. (Dual)", "Mathematics and Computing",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="Undecided", "Undecided",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Degree=="B.A.(Hons) Journalism", "Arts",data3$Stream)  > data3$Stream <- ifelse(is.na(data3$Stream) & data3$Internship\_Profile=="Editorial(Law)", "Law",data3$Stream)  > data3$Stream <- as.factor(data3$Stream)  > # Replacing NULL in Experience\_Type , Profile with No\_Exp  > summary(data3$Experience\_Type)  academic\_project award internship job NULL other participation por  45311 14953 51116 18943 101713 1321 14205 16368  training workshop  25281 10799  > summary(data3$Profile)  NULL Intern  229753 2347  Content Writing & Social Media Marketing Web Development  1822 1617  Marketing Content Writer  1563 1379  Content Development Graphic Design  1348 1051  Android App Development Trainee  947 936  Business Development Software Development  838 822  Content Writing Sales & Marketing  795 763  Digital Marketing Social Media Marketing  745 620  Marketing Research Operations  524 469  Business Development & Social Media Marketing Graphic Designer  428 410  HR Social Media Marketing & Content Writing  394 369  0 Sales And Marketing  368 354  Volunteer Software Engineering  348 344  Marketing Intern Developer  339 324  Teaching Campus Ambassador  321 320  Web Developer SUMMER INTERN  318 310  Finance HR Intern  274 268  Design Editorial and Content Writing  247 245  Analyst Management Trainee  238 227  Internship Java Developer  225 219  Research Internship Programme Research  206 194  Photography SEO, Design, Content And Social Media Marketing  192 183  Designer Summer Research Internship Programme  179 175  Blogger Full Stack Developer  174 162  Testing Software Developer  157 154  Research Analyst Android Developer  152 151  Market Research Research Intern  150 150  Web Design Digital Marketing Intern  150 146  Marketing Executive Human Resource  146 144  Field Investigator Student  143 141  Intern Programmer Event Management  131 130  Python Intern Textile Industry  129 126  Business Development (Sales) Front End Developer  121 121  Engineer Product Development  120 120  Branding Online Marketing  119 117  Training Campaign Associate  116 115  ui/ux developer, wordpress developer Design Intern  115 112  Software Testing Recruitment  112 110  App Development Software Engineer  108 108  Project Trainee Networking  107 104  Database Management Customer Service  103 101  Journalism PHP Developer  101 101  Social Media Intern Mechanical Engineering  98 96  Software Intern Course Content Developer And Assistant  96 93  Research & Analysis (Meta-Analysis, Statistics, Data Science) Software Developer Intern  93 92  Animation & Editing Data Analyst  91 91  Market Research/Content Writer/Graphic Design Sales  89 88  Executive Assistant Intern Market Research/Business Development  87 87  Training & Development Executive Web Development & Android App Development  87 87  (Other) NA's  37499 11  > data3$Profile <- as.character(data3$Profile)  > data3$Experience\_Type <- as.character(data3$Experience\_Type)  > table(as.factor(data3$Experience\_Type))  academic\_project award internship job NULL other participation por training workshop  45311 14953 51116 18943 101713 1321 14205 16368 25281 10799  > data3$Profile[data3$Experience\_Type!="NULL" & data3$Profile=="NULL"]<- "Intern"  > data3$Profile[is.na(data3$Profile)] <- "Intern"  > data3$Experience\_Type[data3$Experience\_Type=="NULL"] <- "No\_Exp"  > data3$Profile[data3$Profile=="NULL"] <- "No\_Exp"  > table(data3$Experience\_Type)  academic\_project award internship job No\_Exp other participation por training workshop  45311 14953 51116 18943 101713 1321 14205 16368 25281 10799  > sort(table(as.factor(data3$Profile)),decreasing=TRUE)[1:50]  Intern No\_Exp Content Writing & Social Media Marketing  130398 101713 1822  Web Development Marketing Content Writer  1617 1563 1379  Content Development Graphic Design Android App Development  1348 1051 947  Trainee Business Development Software Development  936 838 822  Content Writing Sales & Marketing Digital Marketing  795 763 745  Social Media Marketing Marketing Research Operations  620 524 469  Business Development & Social Media Marketing Graphic Designer HR  428 410 394  Social Media Marketing & Content Writing 0 Sales And Marketing  369 368 354  Volunteer Software Engineering Marketing Intern  348 344 339  Developer Teaching Campus Ambassador  324 321 320  Web Developer SUMMER INTERN Finance  318 310 274  HR Intern Design Editorial and Content Writing  268 247 245  Analyst Management Trainee Internship  238 227 225  Java Developer Research Internship Programme Research  219 206 194  Photography SEO, Design, Content And Social Media Marketing Designer  192 183 179  Summer Research Internship Programme Blogger Full Stack Developer  175 174 162  Testing Software Developer  157 154  > data3$Profile <- as.factor(data3$Profile)  > data3$Experience\_Type <- as.factor(data3$Experience\_Type)  > data3$S\_Date <- as.character(data3$S\_Date)  > data3$E\_Date <- as.character(data3$E\_Date)  > data3$S\_Date[is.na(data3$S\_Date) & data3$Experience\_Type=="No\_Exp"] <- "2015-02-21"  > data3$E\_Date[is.na(data3$E\_Date) & data3$Experience\_Type=="No\_Exp"] <- "2015-02-21"  > data3$S\_Date <- as.Date(data3$S\_Date,"%Y-%m-%d")  > data3$E\_Date <- as.Date(data3$E\_Date,"%Y-%m-%d")  > data3$E\_Date[is.na(data3$E\_Date)] <- as.Date("21-02-2015", "%d-%m-%Y")  > max(data3$E\_Date)  [1] "2015-02-21"  > #NULL values of Stipend1 (2859 NULL values)  > data3$Stipend1 <- as.character(data3$Stipend1)  > data3$Stipend1 <- as.numeric(data3$Stipend1)  Warning message:  NAs introduced by coercion  > sum(is.na(data3$Stipend1))  [1] 2859  > sum(is.na(data3$Stipend1[data3$Stipend\_Type=="unpaid"]))  [1] 2859  > ## Stipend\_Type == "unpaid" are NA or NULL in Stipend1; can replace them as 0  > data3$Stipend1 <- ifelse(is.na(data3$Stipend1),0,data3$Stipend1)  > table(data3$Stipend1[data3$Stipend\_Type=="unpaid"])  0 3000 5000  2859 7 5  > # (7+5) obs in data3$Stipend1 has values otherthan 0 when Stipend\_Type=="unpaid"  > # Converting them to 0  > #data3$Stipend1 <- ifelse(data3$Stipend\_Type=="unpaid",0,data3$Stipend1)  > data3$Stipend1 <- as.numeric(as.character(data3$Stipend1))  > data3$Stipend1[data3$Stipend\_Type=="unpaid"] <- 0  > #NULL values of stipend2 (151897 NULL values) replaced by median  > data3$Stipend2 <- as.numeric(as.character(data3$Stipend2))  Warning message:  NAs introduced by coercion  > data3$Stipend2[data3$Stipend\_Type=="unpaid"] <- 0  > ## NA values replaced by median  > data3$Stipend2[is.na(data3$Stipend2)] <- 10000  > ## Capping outliersin data3$Stipend1  > table(data3$Stipend1)  0 1 5 10 15 20 25 30 40 50 75 100 120 150 200 250 300 350 400 450 500 600 750 1000 1050 1200 1250 1300 1400 1500  2871 45 16 207 25 145 25 76 90 1295 145 2631 154 988 1217 479 959 131 214 2 5538 499 3 14743 4 15 49 17 144 2248  1750 1800 2000 2500 2800 3000 3400 3500 4000 4400 4500 5000 5100 5500 6000 6250 6500 6600 7000 7300 7500 8000 8500 9000 9300 9500 10000 10500 11000 12000  1 2 22056 3364 137 20617 12 1935 13838 1 411 76273 5 299 10234 4 878 66 9374 158 2439 19047 432 1165 95 98 40045 178 51 7427  12500 13000 14000 15000 16000 17000 17500 18000 19000 20000 21000 22000 24000 25000 28500 30000 35000 40000 50000  574 515 510 18172 357 118 30 789 67 8154 9 82 96 3560 27 937 3 343 50 |
|  |
| > data3$Stipend2[data3$Stipend1==30000]  [1] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [30] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [59] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [88] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [117] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [146] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [175] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [204] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [233] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [262] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [291] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [320] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [349] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [378] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [407] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [436] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [465] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [494] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [523] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [552] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [581] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [610] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [639] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [668] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [697] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [726] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [755] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [784] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [813] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [842] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [871] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000  [900] 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000 40000  [929] 40000 40000 40000 40000 40000 40000 40000 40000 40000  > data3$Stipend1[data3$Stipend1==50000] <- 5000  > data3$Stipend1[data3$Stipend1==40000] <- 4000  > data3$Stipend1[data3$Stipend1==35000] <- 3500  > data3$Stipend1[data3$Stipend1==30000 & data3$Stipend2==10000]<- 3000  > ## Capping outliersin data3$Stipend2  > sort(data3$Stipend2,decreasing=TRUE)  [1] 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000  [25] 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000  [49] 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000 150000  [73] 150000 150000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000  [97] 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 75000 50000  [121] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [145] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [169] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [193] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [217] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [241] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [265] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [289] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [313] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [337] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [361] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [385] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [409] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [433] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [457] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [481] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [505] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [529] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [553] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [577] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [601] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [625] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [649] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [673] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [697] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [721] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [745] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [769] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [793] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [817] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [841] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [865] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [889] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [913] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [937] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [961] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [985] 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000 50000  [ reached getOption("max.print") -- omitted 299010 entries ]  > table(data3$Stipend2)  0 100 130 400 500 700 800 1000 1500 2000 2500 3000 3500 4000 4500 5000 5001 5500 6000 6500 7000 7500 8000 9000 9500  2871 53 35 36 194 82 49 1324 1391 1912 439 3884 768 3813 135 16179 48 257 5524 214 4930 584 12608 558 10  10000 10500 11000 12000 13000 14000 15000 15999 16000 17000 18000 19000 20000 23000 24000 25000 26000 30000 35000 40000 50000 75000 150000  179561 229 120 8488 168 1015 23394 138 326 17 948 177 12998 9 22 6369 9 5883 558 175 1389 45 74  > data3$Stipend1[data3$Stipend2==150000] ##showing 8000 and 10000 . Must be wrong entry  [1] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 8000 8000 8000 8000 8000  [30] 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000  [59] 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000 8000  > data3$Stipend2[data3$Stipend2==150000]<- 15000  > data3$Stipend1[data3$Stipend2==75000]  [1] 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000  [30] 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000  > data3$Stipend1[data3$Stipend2==50000]  [1] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [30] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [59] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [88] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [117] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [146] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [175] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [204] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [233] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [262] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [291] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [320] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [349] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [378] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [407] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000  [436] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 25000 25000 25000 25000 25000 25000 25000 25000 25000  [465] 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000  [494] 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000  [523] 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000  [552] 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000  [581] 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000  [610] 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000  [639] 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000 25000  [668] 25000 25000 25000 25000 25000 25000 25000 25000 25000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000  [697] 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000  [726] 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000  [755] 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000  [784] 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000  [813] 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000  [842] 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000  [871] 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000  [900] 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000 15000  [929] 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000  [958] 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000  [987] 30000 30000 30000 30000 30000 30000 30000 5000 5000 5000 5000 5000 5000 5000  [ reached getOption("max.print") -- omitted 389 entries ]  > # Outliers in data2$Internship\_Duration.Months.  > summary(data3$Internship\_Duration.Months.)  Min. 1st Qu. Median Mean 3rd Qu. Max.  0 2 3 3028 5 20160331  > table(data3$Internship\_Duration.Months.)  0 1 2 3 4 5 6 7 8 9 10 11 12 15 18 24 30 36 2016 10000  58 68089 63218 75485 14890 6575 62886 64 762 444 219 170 6719 46 51 163 43 59 6 18  20160201 20160331  32 13  > table(data3$Start\_Date[data3$Internship\_Duration.Months.==2016]) # 2014-12-15  2014-12-15  6  > #replacing by 24  > data3$Internship\_Duration.Months.<- ifelse(data3$Internship\_Duration.Months.==2016,24,data3$Internship\_Duration.Months.)   |  | | --- | | > table(data3$Start\_Date[data3$Internship\_Duration.Months.==10000])  2014-12-01  18  > data3$Internship\_Duration.Months.<- ifelse(data3$Internship\_Duration.Months.==10000,10,data3$Internship\_Duration.Months.)  > table(data3$Start\_Date[data3$Internship\_Duration.Months.==20160201])  2015-01-02  32  > data3$Internship\_Duration.Months.<- ifelse(data3$Internship\_Duration.Months.==20160201,12,data3$Internship\_Duration.Months.)  > table(data3$Start\_Date[data3$Internship\_Duration.Months.==20160331])  2015-01-02  13  > data3$Internship\_Duration.Months.<- ifelse(data3$Internship\_Duration.Months.==20160331,15,data3$Internship\_Duration.Months.)  > # why min=0 in summary(data3$Performance\_PG),summary(data3$Performance\_UG),summary(data3$Performance\_12th)  > # summary(data3$Performance\_10th)  > table(data3$Performance\_10th)  0 0.85 1 1.4 2 3 3.3 3.5 4 4.2 4.5 4.6 4.7 4.8 4.9 5 5.1 5.2 5.4 5.5 5.6 5.7 5.8 5.9 6 6.1 6.13 6.16 6.2 6.3  63 2 2 4 6 3 2 1 17 8 11 13 1 7 10 49 6 13 25 1 63 6 72 3 126 16 1 5 106 7  6.32 6.4 6.5 6.57 6.6 6.7 6.79 6.8 6.9 6.95 7 7.1 7.16 7.18 7.2 7.3 7.33 7.4 7.42 7.5 7.6 7.63 7.7 7.74 7.8 7.9 7.93 8 8.06 8.1  1 149 22 1 119 9 1 347 52 1 334 39 1 1 353 18 2 359 1 48 386 3 13 13 445 22 4 544 3 43  8.12 8.14 8.17 8.2 8.25 8.3 8.34 8.36 8.38 8.4 8.46 8.5 8.6 8.67 8.7 8.8 8.89 8.9 9 9.01 9.1 9.2 9.3 9.31 9.32 9.4 9.5 9.6 9.61 9.7  2 7 10 734 1 15 1 4 1 799 1 86 726 1 68 843 1 29 630 3 16 937 53 4 1 1227 112 974 1 118  9.72 9.8 10 12 15 16 20 23 27 31 34 35 35.2 36 36.16 36.33 36.48 37 38 38.15 38.4 38.42 38.53 38.82 39 39.05 39.33 39.6 39.7 39.8  1 1343 1448 3 10 2 5 1 2 12 13 23 20 47 2 1 2 9 48 3 1 1 1 2 16 11 6 1 1 4  39.9 40 40.2 40.33 40.56 40.64 40.67 40.79 41 41.2 41.27 41.5 41.6 41.66 41.7 41.73 41.8 41.81 41.83 42 42.08 42.13 42.3 42.36 42.4 42.5 42.56 42.61 42.8 42.83  2 76 8 25 2 7 1 4 51 3 4 1 1 2 1 6 2 1 1 132 15 4 14 3 3 5 5 1 1 1  43 43.04 43.08 43.2 43.23 43.3 43.33 43.37 43.5 43.52 43.6 43.63 43.66 44 44.13 44.16 44.3 44.33 44.4 44.5 44.6 44.67 44.7 44.76 44.8 44.85 44.93 44.96 45 45.05  164 4 3 79 2 1 6 9 31 18 9 3 3 126 2 8 1 1 1 7 2 3 11 1 4 4 1 1 497 6  45.2 45.3 45.33 45.38 45.4 45.44 45.46 45.5 45.6 45.66 45.73 45.8 45.83 45.84 45.93 46 46.08 46.1 46.18 46.2 46.33 46.4 46.44 46.46 46.47 46.5 46.53 46.66 46.67 46.7  7 4 49 1 1 2 1 17 9 14 8 32 2 2 2 299 7 1 2 31 12 3 1 1 2 3 32 3 2 4  46.72 46.76 46.8 47 47.06 47.16 47.2 47.23 47.28 47.33 47.36 47.38 47.4 47.43 47.46 47.48 47.5 47.6 47.67 47.73 47.8 47.83 47.9 47.91 48 48.16 48.2 48.3 48.33 48.4  5 1 7 456 5 1 17 13 2 13 2 8 14 106 1 2 28 21 1 1 18 4 1 2 704 6 8 96 7 27  48.46 48.48 48.5 48.55 48.56 48.58 48.6 48.62 48.64 48.65 48.66 48.67 48.72 48.8 48.83 48.92 49 49.07 49.1 49.16 49.17 49.18 49.2 49.37 49.38 49.4 49.44 49.46 49.5 49.56  4 12 34 1 5 2 13 1 4 1 4 9 7 30 1 1 344 6 26 17 22 1 19 2 2 47 4 2 35 2  49.6 49.63 49.64 49.67 49.77 49.8 49.83 49.86 49.89 49.92 50 50.1 50.12 50.13 50.17 50.2 50.25 50.3 50.33 50.4 50.43 50.46 50.5 50.51 50.56 50.6 50.61 50.66 50.75 50.8  18 1 14 1 2 17 51 1 10 2 1207 1 1 3 4 21 7 4 18 12 4 1 114 3 13 14 3 4 1 9  50.83 50.88 50.9 50.93 51 51.03 51.04 51.06 51.1 51.16 51.17 51.2 51.21 51.23 51.3 51.33 51.36 51.37 51.38 51.4 51.5 51.64 51.67 51.69 51.75 51.8 51.81 51.85 51.86 51.9  28 3 1 17 532 35 1 1 24 3 6 18 2 10 50 2 4 15 1 71 78 9 63 6 5 4 1 1 13 15  52 52.01 52.12 52.15 52.16 52.17 52.2 52.28 52.3 52.32 52.33 52.34 52.38 52.4 52.44 52.48 52.49 52.5 52.53 52.6 52.61 52.62 52.64 52.66 52.67 52.77 52.8 52.92 52.93 53  994 4 1 1 6 28 61 2 6 51 13 1 1 88 9 1 2 34 3 31 9 2 7 3 91 8 169 1 4 797  53.09 53.14 53.15 53.17 53.18 53.2 53.23 53.26 53.28 53.3 53.33 53.38 53.4 53.41 53.42 53.46 53.5 53.53 53.54 53.57 53.58 53.6 53.67 53.69 53.7 53.73 53.75 53.76 53.8 53.83  1 1 1 2 6 50 26 1 5 10 52 39 23 1 13 2 15 9 6 5 4 34 2 2 8 56 1 5 23 7  53.86 53.88 53.92 54 54.06 54.1 54.14 54.15 54.16 54.2 54.26 54.3 54.33 54.4 54.46 54.48 54.5 54.53 54.55 54.56 54.6 54.61 54.62 54.64 54.67 54.68 54.7 54.72 54.75 54.77  3 1 2 1269 1 5 3 26 7 6 1 47 17 21 8 1 63 1 9 18 65 4 1 1 20 4 47 8 24 2  54.78 54.8 54.83 54.92 54.93 55 55.04 55.06 55.07 55.08 55.09 55.1 55.14 55.16 55.17 55.18 55.2 55.25 55.27 55.33 55.34 55.36 55.38 55.4 55.45 55.5 55.52 55.53 55.54 55.55  3 69 7 1 5 1265 27 8 32 12 3 35 34 4 1 3 29 2 1 9 1 1 5 41 2 45 3 17 2 8  55.56 55.57 55.59 55.6 55.66 55.67 55.68 55.69 55.7 55.73 55.75 55.8 55.83 55.84 55.86 56 56.06 56.12 56.14 56.15 56.16 56.17 56.2 56.22 56.24 56.25 56.26 56.3 56.31 56.33  9 1 10 169 8 1 6 8 1 2 1 48 12 19 2 1352 41 2 3 12 16 11 12 2 2 24 1 12 1 5  56.34 56.36 56.37 56.4 56.42 56.46 56.48 56.5 56.57 56.6 56.61 56.63 56.64 56.66 56.67 56.7 56.72 56.74 56.76 56.8 56.83 56.86 56.92 56.96 57 57.02 57.07 57.1 57.12 57.16  3 3 10 68 3 10 12 32 5 43 5 1 17 13 6 10 4 1 6 30 1 4 1 11 1047 2 4 81 8 1  57.2 57.23 57.25 57.27 57.28 57.3 57.32 57.33 57.36 57.4 57.42 57.44 57.45 57.47 57.5 57.53 57.57 57.58 57.6 57.64 57.66 57.67 57.69 57.7 57.71 57.76 57.77 57.8 57.83 57.84  12 7 1 2 35 16 10 63 3 47 9 1 1 5 18 11 3 3 35 2 160 33 18 14 2 32 3 87 5 19  57.86 57.9 57.92 58 58.02 58.04 58.08 58.13 58.15 58.16 58.17 58.18 58.2 58.26 58.28 58.3 58.33 58.34 58.4 58.42 58.46 58.5 58.52 58.53 58.55 58.56 58.58 58.6 58.61 58.65  2 1 24 1513 4 11 16 2 25 12 35 10 27 1 3 13 19 2 72 3 1 79 2 3 1 9 3 140 27 6  58.66 58.67 58.69 58.7 58.71 58.72 58.73 58.75 58.76 58.8 58.82 58.83 58.84 58.85 58.88 58.89 58.9 58.91 58.92 58.94 59 59.02 59.04 59.06 59.07 59.1 59.14 59.15 59.16 59.17  123 15 12 2 2 1 1 12 3 48 10 24 26 2 5 2 111 4 35 2 1310 1 25 1 41 1 2 1 4 20  59.2 59.23 59.28 59.3 59.33 59.36 59.37 59.4 59.43 59.45 59.47 59.5 59.52 59.54 59.56 59.6 59.63 59.66 59.67 59.68 59.69 59.7 59.73 59.8 59.83 59.84 59.85 59.88 59.9 59.99  120 60 5 12 40 14 6 64 6 3 1 73 1 1 4 38 32 41 2 2 7 23 16 36 14 18 1 2 62 1  60 60.01 60.03 60.04 60.08 60.1 60.11 60.13 60.15 60.16 60.17 60.18 60.2 60.25 60.26 60.3 60.32 60.33 60.36 60.37 60.4 60.41 60.44 60.46 60.48 60.5 60.53 60.54 60.55 60.57  3691 5 5 2 10 31 2 4 3 132 10 1 68 2 10 30 4 29 22 1 123 6 1 19 6 40 23 2 4 4  60.59 60.6 60.61 60.62 60.63 60.64 60.65 60.66 60.67 60.7 60.72 60.73 60.74 60.76 60.77 60.8 60.83 60.85 60.9 60.92 60.93 60.95 60.96 61 61.02 61.04 61.06 61.07 61.08 61.09  5 38 19 14 2 3 32 27 53 2 7 1 36 16 1 142 39 1 1 10 22 10 14 1659 6 1 34 61 1 2  61.1 61.11 61.12 61.14 61.16 61.2 61.21 61.23 61.28 61.29 61.3 61.32 61.33 61.37 61.38 61.4 61.44 61.46 61.47 61.48 61.49 61.5 61.53 61.54 61.57 61.58 61.6 61.62 61.63 61.66  6 10 5 7 2 48 25 21 27 2 17 3 16 3 10 122 11 3 7 1 3 42 13 13 147 42 152 25 3 3  61.67 61.69 61.7 61.71 61.72 61.73 61.74 61.76 61.79 61.8 61.83 61.84 61.85 61.86 61.87 61.9 61.92 61.93 62 62.06 62.08 62.1 62.12 62.13 62.14 62.15 62.16 62.17 62.18 62.2  78 17 9 1 1 8 1 20 44 66 68 7 6 22 1 6 47 8 2230 2 1 16 1 1 116 27 1 10 14 107  62.24 62.25 62.27 62.28 62.3 62.31 62.32 62.33 62.34 62.35 62.37 62.38 62.4 62.46 62.5 62.56 62.57 62.6 62.61 62.62 62.63 62.66 62.67 62.68 62.69 62.7 62.72 62.75 62.76 62.77  3 4 2 3 31 3 2 69 2 1 1 36 81 28 46 65 17 83 39 3 3 7 12 3 1 188 29 21 4 4  62.79 62.8 62.83 62.84 62.86 62.88 62.9 62.92 62.93 62.95 62.98 63 63.04 63.05 63.06 63.07 63.08 63.09 63.1 63.14 63.15 63.16 63.17 63.18 63.2 63.23 63.25 63.28 63.29 63.3  1 102 17 15 1 32 46 7 4 2 1 1753 6 1 1 6 16 1 109 1 4 8 5 7 84 29 3 17 2 42  63.33 63.36 63.38 63.4 63.42 63.43 63.44 63.45 63.46 63.5 63.52 63.53 63.54 63.55 63.56 63.57 63.59 63.6 63.63 63.64 63.65 63.66 63.67 63.68 63.69 63.7 63.71 63.73 63.77 63.8  26 18 8 67 1 5 6 1 7 89 4 21 10 9 2 18 9 42 1 11 1 56 21 6 7 36 3 12 6 80  63.83 63.84 63.85 63.86 63.98 64 64.01 64.04 64.08 64.1 64.12 64.14 64.15 64.16 64.17 64.18 64.2 64.23 64.24 64.25 64.26 64.28 64.3 64.32 64.33 64.34 64.36 64.4 64.44 64.45  17 56 15 38 7 2491 30 2 11 31 20 7 45 107 4 10 95 9 2 16 11 2 76 30 71 1 30 154 4 5  64.46 64.48 64.5 64.51 64.53 64.56 64.57 64.6 64.61 64.62 64.64 64.66 64.67 64.68 64.7 64.71 64.73 64.75 64.76 64.77 64.8 64.83 64.85 64.88 64.89 64.9 64.91 64.92 64.93 64.94  15 3 145 2 4 1 1 133 3 2 33 19 14 4 13 1 11 1 10 3 304 1 4 2 3 1 1 13 3 3  64.96 65 65.03 65.04 65.07 65.08 65.09 65.1 65.12 65.14 65.16 65.17 65.18 65.2 65.23 65.25 65.27 65.28 65.29 65.3 65.31 65.33 65.34 65.35 65.37 65.38 65.4 65.41 65.44 65.45  12 2804 1 1 2 9 1 3 15 3 27 39 4 116 13 34 3 34 1 25 1 8 13 1 4 18 225 2 24 4  65.46 65.47 65.5 65.53 65.54 65.57 65.6 65.62 65.63 65.64 65.65 65.66 65.67 65.69 65.7 65.71 65.72 65.75 65.76 65.8 65.82 65.83 65.84 65.85 65.86 65.9 65.92 66 66.01 66.04  6 2 55 22 16 5 131 25 27 4 7 56 3 8 73 7 7 4 15 92 40 203 18 20 3 13 9 2265 19 9  66.05 66.08 66.1 66.12 66.13 66.14 66.15 66.16 66.17 66.18 66.2 66.22 66.23 66.24 66.25 66.28 66.29 66.3 66.31 66.33 66.36 66.4 66.41 66.43 66.44 66.46 66.5 66.53 66.54 66.55  14 63 3 10 2 8 20 11 7 8 50 8 7 93 3 93 8 16 3 12 5 120 2 1 2 22 226 4 2 1  66.56 66.57 66.58 66.6 66.61 66.62 66.63 66.64 66.66 66.67  38 1 1 129 11 9 2 2 277 53  [ reached getOption("max.print") -- omitted 1988 entries ]  > Performance\_10th <- ifelse(data3$Performance\_10th <= 10, (data3$Performance\_10th\*10),data3$Performance\_10th)  > Performance\_10th <- ifelse(Performance\_10th == 8.5, (Performance\_10th\*10),Performance\_10th)  > Performance\_10th <- ifelse(Performance\_10th < 40 , 40,Performance\_10th)  > data3$Performance\_10th <- Performance\_10th  > table(data3$Performance\_12th)  0 0.94 1 1.8 2 3 3.4 4 4.2 4.5 4.8 5 5.03 5.1 5.2 5.3 5.4 5.49 5.5 5.6 5.7 5.83 5.85 5.9 6 6.05 6.1 6.2 6.24 6.26  1361 2 9 1 2 38 2 41 8 1 3 21 10 3 2 5 3 8 30 6 3 1 1 18 113 1 4 16 1 5  6.3 6.4 6.46 6.5 6.58 6.6 6.64 6.65 6.7 6.72 6.75 6.8 6.87 6.9 7 7.07 7.13 7.14 7.2 7.24 7.25 7.27 7.3 7.33 7.38 7.4 7.5 7.53 7.55 7.56  7 29 2 20 5 2 4 1 51 2 7 41 2 31 95 8 1 1 42 1 1 6 8 2 4 62 39 7 3 14  7.58 7.6 7.67 7.68 7.7 7.74 7.77 7.8 7.82 7.83 7.84 7.85 7.88 7.89 7.9 7.96 7.98 8 8.02 8.06 8.07 8.08 8.1 8.14 8.2 8.22 8.3 8.4 8.42 8.43  1 14 2 1 105 2 4 67 5 4 1 2 4 3 32 4 4 84 5 3 3 8 42 3 43 3 9 83 4 6  8.44 8.46 8.47 8.5 8.59 8.6 8.61 8.63 8.7 8.74 8.8 8.84 8.88 8.89 8.9 9 9.01 9.1 9.16 9.18 9.2 9.23 9.27 9.28 9.3 9.34 9.35 9.36 9.38 9.4  4 1 1 18 9 23 6 2 9 4 18 2 1 1 3 35 3 8 1 1 7 1 7 5 6 1 4 1 1 13  9.43 9.49 9.5 9.53 9.56 9.6 9.7 9.8 9.83 10 11 12 12.5 15 17 17.06 20 21 23 25 26 32 35 35.32 35.35 36 36.83 37 37.33 37.5  2 1 28 1 1 39 1 4 3 102 3 9 1 1 3 5 1 1 1 1 30 2 46 5 12 55 1 85 2 4  37.83 38 38.43 38.5 38.67 39 39.16 39.33 39.4 39.5 39.66 39.8 39.83 39.9 40 40.17 40.33 40.41 40.44 40.5 40.6 40.66 40.83 40.87 41 41.2 41.25 41.33 41.35 41.5  3 48 5 4 25 34 13 1 1 41 10 2 2 1 503 2 4 11 7 1 16 3 12 1 239 1 1 8 2 30  41.53 41.56 41.66 41.83 42 42.16 42.2 42.24 42.3 42.33 42.37 42.4 42.5 42.57 42.6 42.61 42.66 42.67 42.73 42.8 42.83 43 43.16 43.17 43.2 43.22 43.3 43.33 43.35 43.4  2 8 27 1 269 65 12 4 12 20 1 3 125 9 10 1 4 10 1 2 9 371 23 9 51 1 1 62 2 3  43.44 43.47 43.5 43.6 43.66 43.67 43.8 43.82 43.83 43.87 43.92 44 44.1 44.11 44.15 44.16 44.17 44.2 44.3 44.33 44.4 44.43 44.45 44.5 44.53 44.57 44.62 44.66 44.67 44.8  1 5 15 12 2 1 5 34 17 1 1 318 8 11 8 6 46 13 1 17 13 4 7 132 3 8 17 50 9 6  44.83 45 45.12 45.16 45.17 45.2 45.22 45.29 45.33 45.35 45.36 45.4 45.5 45.6 45.64 45.66 45.67 45.7 45.8 45.83 46 46.12 46.16 46.17 46.2 46.3 46.33 46.4 46.43 46.5  40 713 51 65 17 11 106 1 74 2 4 84 36 18 14 6 12 13 9 100 603 5 22 27 3 21 17 8 1 91  46.6 46.64 46.66 46.67 46.68 46.72 46.73 46.74 46.78 46.8 46.83 46.89 47 47.07 47.08 47.1 47.13 47.14 47.16 47.17 47.2 47.25 47.29 47.3 47.33 47.37 47.4 47.5 47.53 47.54  58 2 29 5 17 1 16 21 1 2 17 5 635 59 1 13 5 1 51 70 15 1 1 3 21 4 32 61 2 13  47.58 47.6 47.63 47.64 47.66 47.67 47.8 47.83 47.92 48 48.05 48.1 48.15 48.16 48.17 48.18 48.2 48.25 48.26 48.3 48.33 48.4 48.5 48.51 48.52 48.57 48.6 48.62 48.63 48.64  1 54 2 6 83 4 76 23 9 744 8 3 1 29 3 6 41 1 3 15 97 136 114 5 5 1 7 3 6 1  48.66 48.67 48.7 48.8 48.83 48.85 48.86 48.87 48.88 48.89 48.9 48.93 48.95 49 49.05 49.1 49.16 49.17 49.2 49.23 49.25 49.3 49.31 49.32 49.33 49.4 49.47 49.5 49.54 49.55  51 13 1 45 100 5 1 2 11 7 10 30 10 818 5 2 24 74 22 4 2 3 3 2 82 28 1 205 2 3  49.56 49.57 49.58 49.59 49.6 49.63 49.66 49.67 49.7 49.74 49.77 49.8 49.83 49.85 49.87 49.88 49.9 49.96 49.99 50 50.01 50.03 50.04 50.05 50.09 50.1 50.14 50.15 50.16 50.17  3 18 5 25 26 24 24 42 38 8 14 47 29 12 2 1 37 5 5 2605 7 5 1 3 29 32 5 10 35 21  50.18 50.2 50.22 50.23 50.25 50.3 50.32 50.33 50.4 50.47 50.5 50.51 50.55 50.56 50.57 50.6 50.61 50.62 50.63 50.65 50.66 50.67 50.7 50.75 50.8 50.81 50.82 50.83 50.99 51  1 38 2 3 1 11 4 59 130 2 148 4 1 2 1 147 1 24 3 7 30 1 7 8 16 3 10 24 2 1276  51.04 51.07 51.1 51.11 51.16 51.17 51.2 51.21 51.22 51.23 51.27 51.3 51.33 51.37 51.4 51.41 51.5 51.52 51.53 51.54 51.6 51.61 51.63 51.64 51.66 51.67 51.68 51.7 51.71 51.8  16 1 5 1 21 17 92 8 1 2 2 4 84 1 24 1 52 12 68 80 100 1 15 1 1 39 6 35 1 30  51.83 51.86 51.88 51.93 52 52.12 52.13 52.15 52.16 52.17 52.2 52.22 52.24 52.3 52.33 52.36 52.4 52.42 52.46 52.5 52.53 52.55 52.59 52.6 52.62 52.63 52.64 52.66 52.67 52.7  62 4 11 4 1459 1 1 12 55 29 39 10 4 28 84 1 40 1 3 73 4 3 2 59 4 2 25 14 38 9  52.75 52.76 52.8 52.83 52.85 52.88 52.9 52.92 53 53.03 53.04 53.08 53.14 53.16 53.17 53.2 53.23 53.25 53.27 53.28 53.3 53.31 53.33 53.34 53.39 53.4 53.45 53.46 53.47 53.5  1 1 51 37 17 12 4 1 1390 3 1 7 1 3 78 102 3 1 2 32 18 5 174 21 1 57 3 14 1 145  53.53 53.54 53.55 53.6 53.64 53.65 53.66 53.67 53.69 53.7 53.72 53.75 53.8 53.83 53.84 53.86 53.87 53.89 53.9 53.94 54 54.03 54.04 54.06 54.12 54.13 54.14 54.15 54.16 54.17  2 19 1 49 24 5 38 24 10 12 1 2 235 56 9 1 13 1 1 2 1632 2 2 11 1 1 10 10 39 23  54.2 54.23 54.28 54.3 54.31 54.32 54.33 54.4 54.41 54.46 54.5 54.52 54.54 54.55 54.56 54.6 54.63 54.65 54.66 54.67 54.7 54.75 54.76 54.77 54.8 54.82 54.83 54.84 54.87 54.88  230 2 13 94 8 2 245 101 1 1 120 29 5 1 12 69 2 9 9 64 6 5 2 14 60 4 58 2 29 6  54.89 54.9 54.92 55 55.02 55.07 55.08 55.1 55.16 55.17 55.2 55.21 55.22 55.23 55.26 55.3 55.31 55.33 55.35 55.36 55.38 55.4 55.46 55.5 55.53 55.54 55.55 55.56 55.57 55.6  1 5 58 2485 2 6 7 7 18 29 74 1 11 21 1 2 1 152 1 6 9 111 1 177 12 5 33 11 10 112  55.63 55.64 55.66 55.67 55.71 55.8 55.82 55.83 55.84 55.85 55.88 55.89 56 56.04 56.05 56.1 56.12 56.14 56.15 56.16 56.17 56.2 56.3 56.31 56.33 56.4 56.46 56.5 56.53 56.57  1 2 144 94 2 72 6 91 22 2 8 6 2584 22 1 31 1 2 1 12 37 89 13 3 41 108 6 121 6 10  56.58 56.6 56.61 56.62 56.64 56.65 56.66 56.67 56.68 56.69 56.7 56.71 56.72 56.75 56.8 56.83 56.84 56.86 56.87 56.88 56.89 56.9 56.91 56.92 57 57.04 57.14 57.16 57.17 57.2  3 145 1 2 1 1 32 62 2 2 68 10 1 1 121 70 14 34 1 2 10 12 17 54 1776 41 2 43 36 167  57.23 57.25 57.27 57.29 57.3 57.33 57.35 57.37 57.38 57.4 57.43 57.45 57.46 57.5 57.52 57.53 57.54 57.56 57.57 57.58 57.6 57.61 57.62 57.63 57.65 57.66 57.67 57.69 57.7 57.71  10 3 3 3 22 112 1 1 3 146 3 6 2 136 1 1 2 2 3 6 135 2 8 13 1 14 30 4 7 11  57.75 57.8 57.82 57.83 57.84 57.85 57.86 57.87 57.9 58 58.06 58.07 58.14 58.15 58.16 58.17 58.18 58.2 58.23 58.25 58.28 58.3 58.31 58.33 58.36 58.38 58.4 58.43 58.45 58.46  2 297 8 79 2 9 1 7 1 2676 1 2 2 12 86 146 8 210 2 9 5 47 4 72 15 10 114 1 1 1  58.48 58.5 58.53 58.55 58.56 58.57 58.58 58.6 58.61 58.62 58.63 58.64 58.65 58.66 58.67 58.7 58.72 58.73 58.75 58.77 58.78 58.8 58.81 58.82 58.83 58.86 58.88 58.9 58.92 58.94  1 172 3 3 1 2 1 186 1 15 7 2 18 39 68 21 3 2 3 38 1 204 3 5 102 8 8 61 5 1  58.98 59 59.04 59.05 59.06 59.08 59.1 59.12 59.16 59.17 59.18 59.2 59.22 59.23 59.25 59.27 59.29 59.3 59.32 59.33 59.37 59.38 59.39 59.4 59.43 59.45 59.46 59.5 59.54 59.55  4 1915 3 4 5 33 3 1 35 76 10 117 3 44 14 2 12 27 1 90 17 10 1 85 13 6 14 69 1 1  59.56 59.58 59.6 59.62 59.63 59.64 59.65 59.66 59.67 59.68 59.69 59.7 59.73 59.75 59.8 59.83 59.84 59.85 59.86 59.89 59.9 59.99 60 60.01 60.02 60.03 60.04 60.05 60.07 60.08  1 1 242 13 3 3 7 16 43 4 2 39 1 25 146 24 3 7 3 1 58 8 7194 6 21 2 14 3 1 3  60.1 60.12 60.13 60.14 60.15 60.16 60.17 60.19 60.2 60.21 60.23 60.25 60.3 60.31 60.32 60.33 60.4 60.41 60.42 60.43 60.44 60.45 60.46 60.5 60.53 60.57 60.58 60.59 60.6 60.61  14 2 42 16 9 20 44 1 353 3 3 22 42 3 3 99 242 5 10 5 6 1 12 143 2 8 1 4 222 4  60.62 60.63 60.64 60.66 60.67 60.7 60.71 60.72 60.75 60.76 60.77 60.79 60.8 60.81 60.83 60.85 60.86 60.9 60.92 61 61.02 61.04 61.05 61.06 61.07 61.08 61.1 61.11 61.12 61.14  3 5 1 30 37 10 3 4 3 2 14 1 197 17 63 26 2 102 9 2682 4 6 3 3 6 12 33 11 6 9  61.16 61.17 61.19 61.2 61.22 61.23 61.24 61.25 61.28 61.3 61.31 61.33 61.34 61.37 61.38 61.4 61.41 61.42 61.43 61.44 61.45 61.46 61.48 61.49 61.5 61.54 61.55 61.56 61.57 61.59  6 42 2 225 3 36 1 8 1 34 7 114 4 19 11 138 3 21 2 1 1 9 1 3 123 3 34 1 1 3  61.6 61.63 61.64 61.65 61.66 61.67 61.68 61.69 61.7 61.77 61.8 61.81 61.82 61.83 61.84 61.85 61.86 61.9 61.92 61.97 62 62.02 62.03 62.04 62.05 62.06 62.07 62.08 62.1 62.11  109 2 7 16 14 190 13 5 21 25 189 3 2 58 2 3 6 19 17 9 3550 8 3 3 29 4 1 16 9 4  62.12 62.13 62.14 62.15 62.16 62.17 62.18 62.2 62.22 62.24 62.25 62.28 62.3 62.31 62.33 62.34 62.38 62.4 62.43 62.44 62.46 62.49 62.5 62.53 62.54 62.58 62.6 62.62 62.63 62.64  3 2 11 14 17 38 10 401 16 6 22 8 46 9 105 13 1 256 1 3 23 1 276 3 2 7 258 19 3 3  62.66 62.67 62.68 62.7 62.73 62.75 62.77 62.8 62.81 62.83 62.84 62.86 62.89 62.9 62.92 63 63.03 63.04 63.06 63.07 63.08 63.1 63.13 63.14 63.15 63.16 63.17 63.18 63.2 63.21  10 32 13 31 3 7 12 179 1 54 1 12 7 26 37 2898 5 2 21 3 2 24 17 7 12 4 73 1 275 30  63.23 63.26 63.28 63.29 63.3 63.32 63.33 63.36 63.37 63.38  6 10 5 2 24 1 255 25 3 7  [ reached getOption("max.print") -- omitted 1929 entries ]  > Performance\_12th <- ifelse(data3$Performance\_12th <= 10, (data3$Performance\_12th\*10),data3$Performance\_12th)  > Performance\_12th <- ifelse(Performance\_12th <= 10, (Performance\_12th\*10),Performance\_12th)  > Performance\_12th <- ifelse(Performance\_12th < 40 , 40,Performance\_12th)  > data3$Performance\_12th <- Performance\_12th  > ## Since UG\_Scale is there, lets convert to ratio. Degree awarded student must have passed UG  > table(data3$Performance\_UG)  0 0.5 0.6 0.65 0.7 0.8 1 1.2 1.3 1.5 1.6 1.7 1.8 1.87 1.99 2 2.03 2.04 2.05 2.06 2.08 2.09 2.1 2.14 2.15 2.17 2.19 2.2 2.21 2.22  6856 2 1 3 10 1 489 3 2 3 2 5 2 2 14 441 14 3 5 2 4 2 9 1 3 8 1 22 6 5  2.24 2.26 2.28 2.3 2.31 2.32 2.33 2.34 2.35 2.36 2.37 2.38 2.39 2.4 2.41 2.43 2.44 2.45 2.46 2.47 2.48 2.49 2.5 2.52 2.53 2.54 2.55 2.56 2.57 2.58  4 1 1 77 13 7 11 4 8 15 5 11 85 119 10 22 13 6 17 10 10 13 213 12 2 15 22 20 12 19  2.59 2.6 2.61 2.62 2.63 2.64 2.65 2.66 2.67 2.68 2.69 2.7 2.71 2.72 2.73 2.74 2.75 2.76 2.77 2.78 2.79 2.8 2.81 2.82 2.83 2.84 2.85 2.86 2.87 2.88  37 91 8 33 12 24 30 9 34 6 2 236 52 22 22 43 75 27 13 10 8 337 5 7 39 24 20 39 24 39  2.89 2.9 2.91 2.92 2.93 2.94 2.95 2.96 2.97 2.98 2.99 3 3.01 3.02 3.03 3.04 3.05 3.06 3.07 3.08 3.09 3.1 3.11 3.12 3.13 3.14 3.15 3.16 3.17 3.18  29 251 12 19 20 9 16 34 124 63 10 1330 25 53 26 23 17 21 61 23 8 232 71 53 23 43 23 20 63 21  3.19 3.2 3.21 3.22 3.23 3.24 3.25 3.26 3.27 3.28 3.29 3.3 3.31 3.32 3.33 3.34 3.35 3.36 3.37 3.38 3.39 3.4 3.41 3.42 3.43 3.44 3.45 3.46 3.47 3.48  33 314 63 36 25 86 68 29 13 47 16 90 8 20 28 32 75 25 16 36 4 177 35 15 2 5 16 34 15 13  3.49 3.5 3.51 3.52 3.53 3.54 3.55 3.56 3.57 3.58 3.59 3.6 3.61 3.62 3.63 3.64 3.65 3.66 3.67 3.68 3.69 3.7 3.71 3.72 3.74 3.75 3.76 3.77 3.78 3.79  13 375 15 25 18 24 16 279 3 22 4 123 11 4 35 10 29 18 10 15 20 289 28 3 18 53 5 9 31 6  3.8 3.82 3.83 3.84 3.85 3.86 3.87 3.88 3.89 3.9 3.91 3.92 3.93 3.94 3.95 3.96 3.97 3.98 4 4.01 4.02 4.04 4.07 4.1 4.11 4.13 4.14 4.15 4.16 4.17  62 4 17 2 1 9 8 1 5 21 1 4 4 4 3 1 1 11 1148 3 1 2 1 3 1 2 1 1 8 7  4.2 4.22 4.23 4.25 4.26 4.27 4.29 4.3 4.31 4.32 4.33 4.35 4.36 4.37 4.38 4.4 4.44 4.47 4.5 4.53 4.55 4.56 4.57 4.58 4.6 4.62 4.63 4.64 4.65 4.67  35 13 1 2 16 3 5 12 5 1 2 5 4 20 7 21 2 1 138 20 2 10 10 4 41 1 3 1 2 20  4.7 4.71 4.72 4.74 4.75 4.76 4.77 4.78 4.79 4.8 4.81 4.82 4.83 4.84 4.85 4.86 4.88 4.9 4.91 4.92 4.93 4.94 4.95 4.96 4.97 4.98 5 5.01 5.02 5.03  106 5 1 1 18 34 3 7 9 130 15 3 46 2 1 42 1 44 2 2 6 5 1 1 21 3 2198 17 40 6  5.04 5.05 5.06 5.07 5.08 5.09 5.1 5.11 5.12 5.13 5.14 5.15 5.16 5.17 5.18 5.19 5.2 5.21 5.22 5.23 5.24 5.25 5.26 5.27 5.28 5.29 5.3 5.32 5.33 5.34  6 8 7 18 32 20 119 2 2 20 9 24 11 42 69 4 349 6 4 5 7 63 9 7 9 11 258 21 35 18  5.35 5.36 5.37 5.38 5.39 5.4 5.41 5.42 5.43 5.44 5.45 5.46 5.47 5.48 5.49 5.5 5.51 5.52 5.53 5.54 5.55 5.56 5.57 5.58 5.59 5.6 5.61 5.62 5.63 5.64  53 5 16 10 62 340 13 4 18 7 33 7 15 17 5 1023 11 120 43 19 8 34 20 51 7 419 20 26 2 9  5.65 5.66 5.67 5.68 5.69 5.7 5.71 5.72 5.73 5.74 5.75 5.76 5.77 5.78 5.79 5.8 5.81 5.82 5.83 5.84 5.85 5.86 5.87 5.88 5.89 5.9 5.91 5.92 5.93 5.94  142 11 53 58 14 404 19 253 19 7 51 36 42 65 37 439 13 33 43 9 16 51 54 58 23 379 13 28 43 19  5.95 5.96 5.97 5.98 5.99 6 6.01 6.02 6.03 6.04 6.05 6.06 6.07 6.08 6.09 6.1 6.11 6.12 6.13 6.14 6.15 6.16 6.17 6.18 6.19 6.2 6.21 6.22 6.23 6.24  30 47 48 72 72 7337 120 89 58 71 94 64 72 54 16 761 46 91 54 127 97 49 200 58 65 1154 77 47 90 48  6.25 6.26 6.27 6.28 6.29 6.3 6.31 6.32 6.33 6.34 6.35 6.36 6.37 6.38 6.39 6.4 6.41 6.42 6.43 6.44 6.45 6.46 6.47 6.48 6.49 6.5 6.51 6.52 6.53 6.54  124 68 72 32 51 1283 41 164 194 87 111 55 34 96 82 1212 35 125 147 82 139 36 108 90 55 3604 81 303 77 114  6.55 6.56 6.57 6.58 6.59 6.6 6.61 6.62 6.63 6.64 6.65 6.66 6.67 6.68 6.69 6.7 6.71 6.72 6.73 6.74 6.75 6.76 6.77 6.78 6.79 6.8 6.81 6.82 6.83 6.84  125 89 66 99 98 945 155 101 356 182 177 62 287 161 118 1362 251 117 153 89 381 145 80 131 141 1940 192 93 131 226  6.85 6.86 6.87 6.88 6.89 6.9 6.91 6.92 6.93 6.94 6.95 6.96 6.97 6.98 6.99 7 7.01 7.02 7.03 7.04 7.05 7.06 7.07 7.08 7.09 7.1 7.11 7.12 7.13 7.14  155 99 70 139 212 1493 97 203 192 197 190 159 106 199 159 12752 234 273 205 202 292 255 228 147 139 1501 129 525 173 345  7.15 7.16 7.17 7.18 7.19 7.2 7.21 7.22 7.23 7.24 7.25 7.26 7.27 7.28 7.29 7.3 7.31 7.32 7.33 7.34 7.35 7.36 7.37 7.38 7.39 7.4 7.41 7.42 7.43 7.44  181 167 124 190 175 2942 140 334 282 113 291 144 265 143 281 1533 381 230 326 366 209 165 81 232 269 1734 159 199 288 237  7.45 7.46 7.47 7.48 7.49 7.5 7.51 7.52 7.53 7.54 7.55 7.56 7.57 7.58 7.59 7.6 7.61 7.62 7.63 7.64 7.65 7.66 7.67 7.68 7.69 7.7 7.71 7.72 7.73 7.74  359 181 217 211 226 4058 93 211 250 289 269 301 174 143 134 1843 255 154 217 189 293 103 263 254 185 1188 184 141 155 226  7.75 7.76 7.77 7.78 7.79 7.8 7.81 7.82 7.83 7.84 7.85 7.86 7.87 7.88 7.89 7.9 7.91 7.92 7.93 7.94 7.95 7.96 7.97 7.98 7.99 8 8.01 8.02 8.03 8.04  372 238 214 219 203 2197 166 156 211 208 336 393 162 165 376 1191 103 288 177 136 335 255 210 161 96 9770 268 294 258 385  8.05 8.06 8.07 8.08 8.09 8.1 8.11 8.12 8.13 8.14 8.15 8.16 8.17 8.18 8.19 8.2 8.21 8.22 8.23 8.24 8.25 8.26 8.27 8.28 8.29 8.3 8.31 8.32 8.33 8.34  153 158 153 275 201 1325 129 229 246 407 344 160 140 316 243 1885 262 166 280 233 292 188 144 148 131 1000 203 207 234 210  8.35 8.36 8.37 8.38 8.39 8.4 8.41 8.42 8.43 8.44 8.45 8.46 8.47 8.48 8.49 8.5 8.51 8.52 8.53 8.54 8.55 8.56 8.57 8.58 8.59 8.6 8.61 8.62 8.63 8.64  268 147 200 283 89 1368 205 185 156 226 187 174 180 136 76 2767 201 131 227 279 239 195 354 115 162 1004 131 155 153 126  8.65 8.66 8.67 8.68 8.69 8.7 8.71 8.72 8.73 8.74 8.75 8.76 8.77 8.78 8.79 8.8 8.81 8.82 8.83 8.84 8.85 8.86 8.87 8.88 8.89 8.9 8.91 8.92 8.93 8.94  151 181 287 81 104 793 131 74 121 107 365 159 159 112 75 840 113 104 150 98 195 122 81 135 150 722 118 86 180 77  8.95 8.96 8.97 8.98 8.99 9 9.01 9.02 9.03 9.04 9.05 9.06 9.07 9.08 9.09 9.1 9.11 9.12 9.13 9.14 9.15 9.16 9.17 9.18 9.19 9.2 9.21 9.22 9.23 9.24  125 104 50 58 58 3937 131 97 142 162 163 60 120 86 163 329 81 74 52 102 83 64 74 115 67 690 79 56 91 84  9.25 9.26 9.27 9.28 9.29 9.3 9.31 9.32 9.33 9.34 9.35 9.36 9.37 9.38 9.39 9.4 9.41 9.42 9.43 9.44 9.45 9.46 9.47 9.48 9.49 9.5 9.51 9.52 9.53 9.54  55 45 71 46 84 240 51 47 107 48 95 27 32 56 53 606 75 54 29 41 30 43 71 21 43 306 33 16 35 30  9.55 9.56 9.57 9.58 9.59 9.6 9.61 9.62 9.63 9.64 9.65 9.66 9.67 9.68 9.69 9.7 9.71 9.72 9.73 9.74 9.75 9.76 9.77 9.78 9.79 9.8 9.81 9.82 9.83 9.84  24 26 10 25 24 287 18 29 35 16 48 56 31 30 9 104 19 34 70 12 18 69 7 5 5 183 17 3 6 5  9.85 9.86 9.87 9.88 9.89 9.9 9.91 9.92 9.95 9.96 9.98 10 12 14 15 19 20 21 24 25 30 32 32.5 32.83 35 36 37.2 38 38.58 39  22 16 3 8 12 23 5 18 4 8 3 1738 1 4 1 1 4 9 2 1 1 2 13 1 21 2 5 23 20 5  39.6 39.75 40 40.5 40.8 40.82 41 41.6 41.8 41.88 42 42.2 42.29 42.3 42.57 42.59 42.71 42.75 43 43.2 43.29 43.5 43.55 44 44.16 44.22 44.4 44.5 44.6 44.82  1 3 145 4 6 6 28 13 6 6 39 1 5 3 3 4 1 28 53 5 2 7 5 59 11 2 16 4 1 1  45 45.13 45.2 45.21 45.33 45.4 45.48 45.5 45.64 45.66 45.8 45.83 46 46.2 46.22 46.33 46.5 46.6 46.62 46.72 46.74 46.81 47 47.12 47.2 47.3 47.5 47.58 47.6 47.7  184 2 1 1 10 3 11 8 1 2 5 2 120 1 9 2 6 11 7 14 5 10 181 6 5 10 1 4 1 1  47.8 48 48.1 48.29 48.3 48.47 48.5 48.52 48.6 48.64 48.7 48.75 48.9 49 49.1 49.11 49.16 49.17 49.19 49.22 49.23 49.3 49.37 49.5 49.57 49.6 49.75 49.88 49.9 49.99  1 164 10 1 2 1 21 3 2 1 2 2 3 218 1 12 1 3 1 1 2 10 1 47 2 5 1 1 32 6  50 50.01 50.02 50.03 50.05 50.06 50.08 50.11 50.12 50.13 50.14 50.17 50.19 50.2 50.23 50.25 50.28 50.3 50.33 50.38 50.4 50.45 50.5 50.51 50.52 50.53 50.57 50.58 50.62 50.67  1898 3 2 1 3 1 6 2 8 53 1 1 1 28 7 17 11 23 2 1 10 1 32 2 10 33 5 4 11 2  50.69 50.7 50.71 50.75 50.77 50.8 50.83 50.84 50.87 50.88 50.9 50.92 50.96 51 51.1 51.14 51.2 51.21 51.22 51.25 51.3 51.33 51.37 51.38 51.39 51.4 51.41 51.5 51.52 51.53  3 6 11 1 2 10 9 4 2 37 2 1 1 806 2 6 2 2 1 15 8 3 10 2 11 32 11 21 4 7  51.58 51.6 51.66 51.67 51.7 51.72 51.75 51.8 51.83 51.85 51.87 51.88 51.89 51.9 51.94 51.96 51.97 51.98 52 52.05 52.06 52.08 52.11 52.13 52.14 52.15 52.16 52.17 52.18 52.19  16 23 10 2 13 2 18 2 1 3 9 5 8 9 6 7 4 2 858 14 1 5 5 12 3 21 7 30 3 4  52.2 52.22 52.23 52.25 52.28 52.3 52.34 52.35 52.37 52.38 52.4 52.41 52.46 52.47 52.5 52.52 52.58 52.6 52.62 52.63 52.66 52.67 52.7 52.75 52.77 52.8 52.81 52.83 52.86 52.87  3 1 6 5 11 6 3 2 17 2 58 5 3 4 26 2 13 27 1 3 12 7 29 14 15 5 2 9 12 19  52.89 52.9 53 53.02 53.03 53.04 53.08 53.1 53.11 53.12  16 18 761 8 6 3 16 1 5 3  [ reached getOption("max.print") -- omitted 2784 entries ]  > table(data3$UG\_Scale[data3$Performance\_UG==0.6])  10  1 | |  | | |  | | --- | |  | | | > Per\_UG <- (data3$Performance\_UG/data3$UG\_Scale)\*100  > Per\_UG <- ifelse(Per\_UG <= 10, (Per\_UG\*10), Per\_UG)  > Per\_UG[substr(data3$Degree,1,1)=="B" & Per\_UG < 40 | substr(data3$Degree,1,1)=="M" & Per\_UG < 40] <- 40  > data3$Performance\_UG <- Per\_UG  > ## Since PG\_Scale is there, lets convert to ratio  > table(data3$Performance\_PG)  0 0.01 1 1.87 1.88 1.89 2 2.03 2.04 2.05 2.06 2.09 2.1 2.14 2.2 2.23 2.26 2.28 2.29 2.3 2.37 2.4 2.41 2.43 2.45  230574 1 61 1 2 12 153 9 1 1 1 2 4 6 2 1 112 1 14 12 4 37 4 3 9  2.48 2.5 2.51 2.54 2.55 2.56 2.57 2.58 2.6 2.61 2.62 2.63 2.65 2.66 2.67 2.68 2.69 2.7 2.71 2.72 2.73 2.74 2.75 2.76 2.77  10 64 8 4 7 3 6 49 71 12 2 3 4 1 3 7 6 27 8 3 6 7 10 17 18  2.78 2.79 2.8 2.81 2.82 2.83 2.84 2.85 2.86 2.87 2.89 2.9 2.91 2.92 2.93 2.94 2.95 2.96 2.97 2.98 2.99 3 3.01 3.02 3.03  7 9 54 1 8 17 2 5 18 5 11 28 6 3 18 7 7 12 72 12 3 267 29 21 1  3.04 3.05 3.06 3.07 3.08 3.09 3.1 3.11 3.12 3.14 3.15 3.16 3.17 3.18 3.19 3.2 3.22 3.23 3.24 3.25 3.26 3.27 3.29 3.3 3.32  11 3 10 15 16 2 56 21 32 12 14 9 22 31 4 350 8 27 27 48 31 2 19 23 20  3.33 3.35 3.36 3.38 3.39 3.4 3.41 3.42 3.43 3.44 3.45 3.48 3.5 3.51 3.52 3.53 3.55 3.56 3.57 3.58 3.59 3.6 3.63 3.64 3.66  13 9 18 7 18 66 4 9 45 8 16 4 124 15 6 11 1 3 2 29 2 6 4 4 1  3.67 3.68 3.7 3.71 3.72 3.73 3.75 3.76 3.77 3.79 3.8 3.81 3.84 3.85 3.88 3.89 3.92 3.93 3.95 3.96 3.98 4 4.03 4.11 4.16  5 2 48 1 10 5 15 13 29 2 17 2 1 2 7 1 1 3 1 2 9 181 1 1 1  4.25 4.29 4.3 4.33 4.44 4.5 4.58 4.6 4.64 4.65 4.7 4.73 4.75 4.8 4.82 4.83 4.85 4.86 4.9 4.92 5 5.04 5.06 5.07 5.09  8 5 6 5 3 36 1 2 1 1 19 32 2 31 2 17 2 5 7 3 231 2 2 5 12  5.1 5.13 5.14 5.17 5.19 5.2 5.21 5.23 5.25 5.26 5.27 5.28 5.29 5.3 5.33 5.35 5.36 5.37 5.38 5.4 5.42 5.43 5.45 5.46 5.47  62 3 24 4 1 40 5 6 19 23 3 9 1 19 33 8 1 3 4 33 1 18 2 5 12  5.5 5.52 5.53 5.54 5.55 5.56 5.57 5.58 5.59 5.6 5.62 5.63 5.64 5.65 5.66 5.67 5.69 5.7 5.71 5.72 5.74 5.75 5.77 5.79 5.8  158 34 2 5 13 19 7 65 1 43 1 5 40 2 23 4 2 26 6 1 2 41 2 1 73  5.81 5.82 5.83 5.84 5.85 5.86 5.87 5.88 5.9 5.91 5.92 5.93 5.94 5.95 5.96 5.97 5.98 5.99 6 6.01 6.02 6.03 6.04 6.05 6.06  11 2 17 15 26 13 1 5 90 13 16 13 9 5 5 8 5 3 1313 8 39 24 3 7 29  6.07 6.08 6.09 6.1 6.11 6.12 6.13 6.14 6.15 6.16 6.17 6.18 6.19 6.2 6.21 6.22 6.23 6.24 6.25 6.26 6.27 6.28 6.29 6.3 6.31  25 24 3 290 7 164 9 13 48 9 14 7 8 206 16 39 14 38 132 32 26 32 17 158 22  6.32 6.33 6.34 6.35 6.36 6.37 6.38 6.39 6.4 6.41 6.42 6.43 6.44 6.45 6.46 6.47 6.48 6.49 6.5 6.51 6.52 6.53 6.54 6.55 6.56  6 27 66 33 6 14 44 12 245 75 23 24 6 70 262 83 3 62 959 26 71 18 23 27 62  6.57 6.58 6.59 6.6 6.61 6.62 6.63 6.64 6.65 6.66 6.67 6.68 6.69 6.7 6.71 6.72 6.73 6.74 6.75 6.76 6.77 6.78 6.79 6.8 6.81  51 57 10 101 10 40 14 148 66 59 181 69 29 416 65 18 13 33 133 90 20 80 44 506 43  6.82 6.83 6.84 6.85 6.86 6.87 6.88 6.89 6.9 6.91 6.92 6.93 6.94 6.95 6.96 6.97 6.98 6.99 7 7.01 7.02 7.03 7.04 7.05 7.06  25 87 10 75 68 80 28 218 259 31 11 17 15 161 53 19 106 29 2307 61 60 114 32 23 47  7.07 7.08 7.09 7.1 7.11 7.12 7.13 7.14 7.15 7.16 7.17 7.18 7.19 7.2 7.21 7.22 7.23 7.24 7.25 7.26 7.27 7.28 7.29 7.3 7.31  128 121 43 355 59 60 90 272 21 48 28 20 42 728 33 262 378 115 137 140 30 49 80 236 49  7.32 7.33 7.34 7.35 7.36 7.37 7.38 7.39 7.4 7.41 7.42 7.43 7.44 7.45 7.46 7.47 7.48 7.49 7.5 7.51 7.52 7.53 7.54 7.55 7.56  82 120 51 93 51 11 65 345 573 64 37 62 53 118 30 63 93 130 684 79 48 79 56 103 110  7.57 7.58 7.59 7.6 7.61 7.62 7.63 7.64 7.65 7.66 7.67 7.68 7.69 7.7 7.71 7.72 7.73 7.74 7.75 7.76 7.77 7.78 7.79 7.8 7.81  50 55 40 855 138 147 95 133 174 120 60 24 27 283 107 94 265 254 240 118 35 28 95 566 87  7.82 7.83 7.84 7.85 7.86 7.87 7.88 7.89 7.9 7.91 7.92 7.93 7.94 7.95 7.96 7.97 7.98 7.99 8 8.01 8.02 8.03 8.04 8.05 8.06  34 89 61 54 69 5 34 218 432 73 59 36 29 23 40 72 130 25 1655 27 62 87 295 72 25  8.07 8.08 8.09 8.1 8.11 8.12 8.13 8.14 8.15 8.16 8.17 8.18 8.19 8.2 8.21 8.22 8.23 8.24 8.25 8.26 8.27 8.28 8.29 8.3 8.31  21 196 11 274 59 53 71 125 81 36 253 66 97 622 80 155 49 110 265 39 16 121 66 407 81  8.32 8.33 8.34 8.35 8.36 8.37 8.38 8.39 8.4 8.41 8.42 8.43 8.44 8.45 8.46 8.47 8.48 8.49 8.5 8.51 8.52 8.53 8.54 8.55 8.56  77 279 79 35 35 71 77 89 225 106 27 146 161 46 10 59 175 28 682 57 97 45 38 35 75  8.57 8.58 8.59 8.6 8.61 8.62 8.63 8.64 8.65 8.66 8.67 8.68 8.69 8.7 8.71 8.72 8.73 8.74 8.75 8.76 8.77 8.78 8.79 8.8 8.81  36 30 6 222 6 78 18 26 44 20 14 63 88 216 26 21 93 34 75 103 9 82 99 152 53  8.82 8.83 8.84 8.85 8.86 8.87 8.88 8.89 8.9 8.91 8.92 8.93 8.94 8.95 8.96 8.97 8.98 8.99 9 9.01 9.02 9.03 9.04 9.05 9.06  22 42 7 13 69 56 16 17 155 3 37 5 20 14 42 16 1 1 476 46 4 2 19 38 12  9.07 9.08 9.09 9.1 9.11 9.12 9.13 9.14 9.15 9.16 9.17 9.18 9.19 9.2 9.21 9.23 9.24 9.25 9.26 9.27 9.28 9.29 9.3 9.31 9.32  9 93 21 44 18 10 7 15 8 30 31 11 5 69 10 32 15 34 14 51 26 3 129 1 38  9.33 9.34 9.35 9.36 9.37 9.38 9.4 9.41 9.42 9.43 9.44 9.45 9.46 9.47 9.48 9.5 9.51 9.54 9.55 9.56 9.57 9.58 9.59 9.6 9.64  17 1 3 38 10 50 93 1 53 6 10 4 1 3 95 45 3 40 4 7 25 7 1 60 15  9.65 9.67 9.7 9.71 9.74 9.75 9.78 9.79 9.8 9.82 9.84 9.85 9.86 9.88 9.89 9.9 9.91 9.96 10 12 20 38 40 41.6 43  6 8 7 2 7 10 2 1 116 3 1 6 2 14 1 20 38 2 231 1 1 6 11 28 16  44 45 45.9 46 48 48.15 48.5 49.8 50 50.21 50.5 50.6 50.83 51 51.1 51.4 51.5 51.6 52 52.02 52.16 52.17 52.45 52.56 52.71  3 7 4 5 33 51 1 1 93 1 1 1 9 25 1 2 1 1 50 2 1 3 7 6 3  52.75 52.92 53 53.14 53.29 53.32 53.37 53.7 54 54.28 54.32 54.33 54.6 54.71 54.75 54.8 54.82 54.84 55 55.04 55.12 55.17 55.2 55.25 55.33  2 3 88 17 2 2 5 4 132 6 3 1 2 1 9 1 1 4 365 5 7 1 7 28 1  55.4 55.46 55.5 55.6 55.63 55.67 55.8 55.82 55.83 55.85 55.9 56 56.25 56.29 56.33 56.35 56.36 56.37 56.38 56.4 56.5 56.57 56.6 56.62 56.75  1 15 2 21 2 3 7 1 5 6 4 84 4 1 1 3 10 2 4 2 2 12 2 3 1  56.85 56.92 57 57.1 57.11 57.29 57.32 57.4 57.45 57.5 57.55 57.6 57.63 57.66 57.7 57.72 57.75 57.8 57.9 58 58.01 58.05 58.09 58.25 58.33  1 3 178 6 16 1 1 7 1 1 9 2 19 1 16 2 6 3 11 163 1 2 4 3 9  58.4 58.46 58.5 58.6 58.63 58.7 58.71 58.75 58.8 58.85 58.89 59 59.04 59.12 59.2 59.28 59.3 59.33 59.4 59.45 59.5 59.55 59.68 59.69 59.75  4 5 9 24 8 10 40 2 2 16 5 189 6 2 14 8 2 1 4 19 19 3 6 1 70  59.78 59.8 59.85 59.86 59.9 59.91 59.99 60 60.02 60.04 60.05 60.08 60.1 60.11 60.12 60.14 60.18 60.19 60.2 60.23 60.26 60.3 60.33 60.34 60.35  2 12 2 6 1 1 1 1421 15 2 2 17 17 1 47 16 3 9 26 5 2 12 5 2 2  60.37 60.4 60.42 60.45 60.47 60.48 60.5 60.57 60.58 60.6 60.64 60.7 60.78 60.8 60.82 60.84 60.85 60.9 60.92 61 61.07 61.1 61.14 61.16 61.2  4 1 1 6 2 4 4 35 23 6 2 6 1 40 2 7 1 5 35 396 4 1 1 1 6  61.23 61.25 61.3 61.31 61.33 61.35 61.4 61.42 61.43 61.45 61.5 61.51 61.56 61.6 61.62 61.64 61.65 61.7 61.72 61.73 61.75 61.8 61.84 61.85 61.9  27 22 12 1 4 3 2 16 5 3 22 1 3 19 4 6 1 8 11 1 17 7 2 1 1  61.92 61.94 61.96 62 62.05 62.07 62.08 62.1 62.13 62.15 62.16 62.17 62.2 62.25 62.3 62.34 62.36 62.4 62.42 62.49 62.5 62.52 62.54 62.57 62.6  1 2 3 759 1 10 1 2 2 10 1 6 2 4 3 1 1 2 2 7 10 18 5 13 4  62.63 62.65 62.67 62.68 62.7 62.71 62.73 62.79 62.8 62.81 62.82 62.85 62.88 62.89 63 63.05 63.09 63.1 63.11 63.18 63.2 63.21 63.24 63.25 63.28  2 1 5 3 7 11 1 2 1 2 6 4 1 9 562 3 10 39 8 13 3 7 20 4 1  63.33 63.34 63.35 63.4 63.43 63.44 63.5 63.53 63.54 63.6 63.62 63.7 63.71 63.72 63.75 63.8 63.81 63.83 63.84 63.9 64 64.01 64.06 64.08 64.1  21 4 9 3 3 19 31 1 16 1 2 3 1 5 1 9 4 13 2 3 667 1 1 7 11  64.14 64.19 64.2 64.21 64.25 64.3 64.33 64.35 64.38 64.4 64.42 64.44 64.45 64.47 64.5 64.57 64.6 64.61 64.62 64.64 64.66 64.67 64.68 64.69 64.7  24 27 32 7 5 4 2 6 4 23 8 1 1 7 27 12 3 1 1 2 36 1 7 1 34  64.71 64.76 64.78 64.8 64.81 64.83 64.84 64.85 64.88 64.9 64.92 64.93 64.95 64.97 64.98 64.99 65 65.07 65.09 65.11 65.12 65.13 65.17 65.18 65.2  11 6 2 14 1 1 2 11 6 2 1 5 1 6 1 2 1343 7 2 12 4 1 5 5 28  65.21 65.23 65.3 65.31 65.33 65.35 65.36 65.37 65.4 65.42 65.43 65.5 65.51 65.52 65.53 65.56 65.57 65.6 65.61 65.64 65.65 65.66 65.67 65.69 65.7  5 7 3 1 11 25 3 2 36 1 9 21 12 3 55 21 1 59 1 1 1 2 2 2 1  65.71 65.8 65.81 65.82 65.84 65.86 65.87 65.88 65.9 65.92 65.93 65.95 65.99 66 66.02 66.03 66.04 66.1 66.13 66.14 66.19 66.21 66.25 66.27 66.3  1 146 62 1 20 1 1 5 13 45 5 4 3 602 3 1 14 1 9 11 15 1 2 4 83  [ reached getOption("max.print") -- omitted 721 entries ]  > Per\_PG <- (data3$Performance\_PG/data3$PG\_scale)\*100  > Per\_PG <- ifelse(Per\_PG < 10, Per\_PG\*10, Per\_PG) # Per\_PG=0 may be who are not PG yet  > table(Per\_PG)  Per\_PG  0 1 10 12 18.7 18.9 20 21 25 26 27.5 28 30 30.8 31 31.2 31.4 31.7 31.8 32 32.2 32.6 33 34 34.2  230574 1 54 1 1 12 55 1 11 2 1 1 39 1 2 4 1 3 1 55 1 1 2 5 2  35 35.8 35.9 36 37 37.2 37.7 38 38.1 40 40.3 41.1 41.6 42.5 42.9 43 43.3 44 44.4 45 45.8 45.9 46 46.4 46.5  5 1 2 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1 54 9 2 19  57.66 57.7 57.72 57.75 57.8 57.9 58 58.01 58.05 58.09 58.1 58.2 58.25 58.3 58.33 58.4 58.46 58.5 58.6 58.63 58.7 58.71 58.75 58.8 58.85  1 18 2 6 3 12 236 1 2 4 11 2 3 17 9 19 5 35 37 8 11 40 2 7 16  58.89 59 59.04 59.1 59.12 59.2 59.25 59.28 59.3 59.33 59.4 59.45 59.5 59.55 59.6 59.68 59.69 59.7 59.75 59.78 59.8 59.85 59.86 59.9 59.91  5 279 6 13 2 30 4 8 15 1 13 19 24 3 5 6 1 8 70 2 17 2 6 4 1  59.99 60 60.02 60.04 60.05 60.08 60.1 60.11 60.12 60.14 60.18 60.19 60.2 60.23 60.25 60.26 60.3 60.33 60.34 60.35 60.37 60.4 60.42 60.45 60.47  1 2771 15 2 2 17 25 1 47 16 3 9 65 5 4 2 36 5 2 2 4 4 1 6 2  60.48 60.5 60.57 60.58 60.6 60.64 60.7 60.75 60.78 60.8 60.82 60.84 60.85 60.9 60.92 61 61.07 61.1 61.14 61.16 61.2 61.23 61.25 61.3 61.31  4 11 35 23 35 2 31 3 1 64 2 7 1 8 35 686 4 8 1 1 170 27 31 21 1  61.33 61.35 61.4 61.42 61.43 61.45 61.5 61.51 61.56 61.6 61.62 61.64 61.65 61.7 61.72 61.73 61.75 61.8 61.84 61.85 61.9 61.92 61.94 61.96 62  4 3 15 16 5 3 70 1 3 28 4 6 1 22 11 1 17 14 2 1 9 1 2 3 975  62.05 62.07 62.08 62.1 62.13 62.15 62.16 62.17 62.2 62.25 62.3 62.34 62.36 62.4 62.42 62.49 62.5 62.52 62.54 62.57 62.6 62.63 62.65 62.67 62.68  1 10 1 18 2 10 1 6 41 4 17 1 1 40 2 7 204 18 5 13 36 2 1 5 3  62.7 62.71 62.73 62.75 62.79 62.8 62.81 62.82 62.85 62.88 62.89 62.9 63 63.05 63.09 63.1 63.11 63.18 63.2 63.21 63.24 63.25 63.28 63.3 63.33  33 11 1 8 2 33 2 6 4 1 9 17 720 3 10 61 8 13 9 7 20 4 1 27 21  63.34 63.35 63.4 63.43 63.44 63.5 63.53 63.54 63.6 63.62 63.7 63.71 63.72 63.75 63.8 63.81 63.83 63.84 63.9 64 64.01 64.06 64.08 64.1 64.14  4 9 69 3 19 68 1 16 7 2 17 1 5 8 53 4 13 2 15 915 1 1 7 86 24  64.19 64.2 64.21 64.25 64.3 64.33 64.35 64.38 64.4 64.42 64.44 64.45 64.47 64.5 64.57 64.6 64.61 64.62 64.64 64.66 64.67 64.68 64.69 64.7 64.71  27 55 7 11 28 2 6 4 29 8 1 1 7 146 12 265 1 1 2 36 1 7 1 117 11  64.76 64.78 64.8 64.81 64.83 64.84 64.85 64.88 64.9 64.92 64.93 64.95 64.97 64.98 64.99 65 65.07 65.09 65.1 65.11 65.12 65.13 65.17 65.18 65.2  6 2 17 1 1 2 11 6 64 1 5 1 6 1 2 2371 7 2 26 12 4 1 5 5 99  65.21 65.23 65.25 65.3 65.31 65.33 65.35 65.36 65.37 65.4 65.42 65.43 65.5 65.51 65.52 65.53 65.56 65.57 65.6 65.61 65.64 65.65 65.66 65.67 65.69  5 7 12 21 1 11 25 3 2 59 1 9 50 12 3 55 21 1 121 1 1 1 2 2 2  65.7 65.71 65.75 65.8 65.81 65.82 65.84 65.86 65.87 65.88 65.9 65.92 65.93 65.95 65.99 66 66.02 66.03 66.04 66.1 66.13 66.14 66.19 66.2 66.21  52 1 3 203 62 1 20 1 1 5 23 45 5 4 3 703 3 1 14 11 9 11 15 40 1  66.25 66.27 66.3 66.32 66.33 66.34 66.35 66.36 66.4 66.42 66.44 66.48 66.5 66.53 66.56 66.57 66.6 66.65 66.66 66.67 66.69 66.7 66.71 66.75 66.78  6 4 97 20 13 8 1 1 152 11 5 1 89 8 10 3 82 5 6 2 8 182 8 9 2  66.8 66.82 66.86 66.87 66.9 66.91 66.95 66.97 67 67.02 67.1 67.11 67.12 67.14 67.15 67.17 67.19 67.2 67.22 67.23 67.25 67.26 67.28 67.3 67.31  80 2 1 1 32 5 34 7 1385 28 65 57 9 4 1 3 1 18 2 37 13 1 8 23 4  67.33 67.35 67.4 67.43 67.47 67.5 67.52 67.54 67.56 67.57 67.6 67.61 67.62 67.65 67.66 67.67 67.68 67.7 67.71 67.72 67.74 67.75 67.8 67.83 67.87  25 2 78 6 1 284 16 2 34 2 90 10 12 9 1 20 9 40 1 1 3 19 87 4 1  67.9 67.92 67.96 67.99 68 68.02 68.04 68.05 68.06 68.09 68.1 68.11 68.13 68.14 68.16 68.19 68.2 68.25 68.26 68.27 68.28 68.3 68.33 68.35 68.37  76 9 15 11 1627 1 15 1 2 1 45 27 5 8 5 7 28 7 1 9 18 100 1 29 36  68.38 68.4 68.41 68.45 68.5 68.51 68.55 68.59 68.6 68.61 68.64 68.66 68.7 68.71 68.73 68.75 68.77 68.78 68.8 68.82 68.83 68.84 68.85 68.86 68.87  8 26 5 9 108 2 9 12 70 9 13 1 119 5 2 16 1 1 29 27 9 2 6 44 2  68.88 68.9 68.94 68.95 68.97 69 69.02 69.04 69.05 69.08 69.1 69.11 69.12 69.15 69.16 69.17 69.19 69.2 69.22 69.24 69.25 69.28 69.29 69.3 69.33  11 219 6 1 8 805 2 14 1 1 48 4 2 7 7 7 2 16 2 4 18 2 3 22 6  69.34 69.37 69.4 69.42 69.44 69.45 69.47 69.5 69.54 69.55 69.58 69.59 69.6 69.64 69.66 69.67 69.69 69.7 69.71 69.74 69.75 69.76 69.78 69.79 69.8  1 3 16 10 1 2 6 250 2 4 3 36 64 1 1 2 57 21 7 5 11 1 5 2 126  69.85 69.87 69.88 69.9 69.92 69.95 69.96 69.97 70 70.02 70.03 70.05 70.06 70.07 70.1 70.11 70.14 70.15 70.18 70.19 70.2 70.23 70.24 70.25 70.26  42 1 1 76 31 8 5 1 4022 10 23 4 52 19 70 10 1 6 8 54 84 3 1 9 4  70.27 70.29 70.3 70.33 70.36 70.39 70.4 70.42 70.45 70.46 70.47 70.5 70.51 70.53 70.58 70.6 70.61 70.63 70.64 70.65 70.66 70.68 70.69 70.7 70.71  4 25 135 7 8 1 54 1 3 1 21 58 5 9 3 47 24 1 8 66 10 17 74 142 5  70.73 70.74 70.75 70.78 70.8 70.81 70.83 70.85 70.88 70.89 70.9 70.95 70.96 71 71.03 71.06 71.09 71.1 71.11 71.14 71.16 71.19 71.2 71.21 71.23  27 1 65 39 127 7 5 34 6 14 68 1 2 892 2 8 3 69 10 5 14 2 109 2 24  71.24 71.25 71.3 71.33 71.37 71.38 71.4 71.42 71.45 71.49 71.5 71.52 71.56 71.58 71.6 71.63 71.64 71.66 71.67 71.68 71.7 71.71 71.73 71.75 71.76  6 34 98 5 7 3 303 3 5 11 97 14 11 3 54 4 17 1 4 9 28 5 2 5 2  71.78 71.8 71.83 71.87 71.9 71.93 71.94 71.95 72 72.02 72.03 72.04 72.06 72.07 72.1 72.11 72.13 72.14 72.19 72.2 72.23 72.24 72.25 72.26 72.28  4 26 8 7 46 1 25 1 1686 5 2 4 1 12 33 2 6 6 9 268 7 13 13 1 2  72.3 72.34 72.35 72.36 72.39 72.4 72.43 72.46 72.5 72.53 72.55 72.57 72.6 72.65 72.68 72.69 72.7 72.71 72.72 72.74 72.75 72.76 72.78 72.79 72.8  389 2 4 5 3 152 3 12 319 2 3 1 187 2 6 1 40 1 6 3 8 3 4 6 85  72.83 72.85 72.86 72.87 72.88 72.9 72.92 72.94 72.95 72.96 73 73.01 73.08 73.1 73.11 73.16 73.19 73.2 73.21 73.23 73.25 73.27 73.3 73.31 73.33  1 1 4 13 4 104 1 24 18 8 863 8 6 49 1 4 16 97 13 13 19 100 153 9 8  73.34 73.35 73.4 73.43 73.44 73.45 73.48 73.5 73.54 73.6 73.61 73.63 73.68 73.69 73.7 73.75 73.77 73.78 73.8 73.84 73.85 73.87 73.88 73.9 73.92  4 6 68 2 13 7 8 124 22 154 1 1 8 1 11 25 4 9 76 1 28 3 3 369 6  73.94 73.95 74 74.02 74.03 74.05 74.07 74.1 74.12 74.14 74.15 74.16 74.18 74.19 74.2 74.21 74.25 74.26 74.3 74.32 74.33 74.34 74.35 74.4 74.41  12 4 1292 3 9 7 15 71 9 2 4 1 24 5 81 8 82 5 79 1 1 11 10 80 11  74.42 74.46 74.49 74.5 74.54 74.56 74.58 74.6 74.62 74.64 74.65 74.7 74.75 74.8 74.84 74.85 74.88 74.9 74.93 74.95 75 75.01 75.05 75.1 75.13  5 2 15 206 1 2 12 38 1 6 5 63 27 97 5 16 6 134 6 6 1881 3 7 80 48  75.15 75.17 75.2 75.21 75.23 75.24 75.25 75.3 75.33 75.34 75.4 75.48 75.5 75.53 75.56 75.57 75.6 75.64 75.66 75.68 75.69 75.7 75.75 75.76 75.8  1 7 77 2 3 1 43 98 2 2 66 17 165 19 1 1 121 24 1 1 19 79 1 13 72  75.9 75.92 75.94 75.97 76 76.04 76.08 76.1 76.13 76.14 76.2 76.25 76.28 76.3 76.33 76.34 76.35 76.36 76.4 76.43 76.45 76.5 76.51 76.57 76.58  40 1 11 1 1197 14 1 140 26 11 156 4 13 95 1 14 1 15 152 12 8 203 11 6 3  76.59 76.6 76.61 76.63 76.7 76.72 76.73 76.75 76.78 76.8 76.81 76.83 76.85 76.86 76.88 76.9 76.92 76.97 76.98 77 77.02 77.04 77.06 77.07 77.08  15 134 18 7 63 1 13 17 2 35 1 1 11 6 5 49 1 57 3 729 8 14 2 6 24  77.09 77.1 77.12 77.13 77.14 77.15 77.16 77.17 77.2 77.23 77.25 77.28 77.29 77.3 77.36 77.37 77.38 77.4 77.43 77.46 77.49 77.5 77.52 77.6 77.69  3 115 4 13 1 3 18 8 94 9 2 5 5 265 1 3 5 274 20 12 9 324 1 118 17  [ reached getOption("max.print") -- omitted 346 entries ]  > Per\_PG[substr(data3$Degree,1,1)=="M" & Per\_PG < 40]<- 40  > data3$Performance\_PG <- Per\_PG  > # Skills\_required NULL  > data3$Skills\_required <- as.character(data3$Skills\_required)  > data3$Skills\_required[data3$Skills\_required=="NULL"] <-"No\_Skill"  > data3$Skills\_required <- as.factor(data3$Skills\_required)  > data3$Exp\_tenure <- 0  > data3$Exp\_tenure <- data3$E\_Date - data3$S\_Date  > data3$Exp\_tenure <- as.numeric(as.character(data3$Exp\_tenure))  > summary(data3$Exp\_tenure)  Min. 1st Qu. Median Mean 3rd Qu. Max.  -1366.0 0.0 44.0 176.6 158.0 7661.0  > data3$Exp\_tenure[data3$Exp\_tenure < 0]<- 0  > table(data3$Exp\_tenure)  0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24  103673 1889 1695 829 1045 697 471 737 466 746 662 508 495 567 992 791 554 423 390 1685 644 818 481 678 462  25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49  692 652 806 1171 2452 5336 5504 1318 908 677 986 862 575 664 826 941 703 832 799 1429 1073 1168 734 458 710  50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74  3785 706 412 509 831 447 810 616 898 1446 3138 4556 1137 959 469 540 616 737 563 309 375 522 676 414 470  75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99  668 392 464 475 367 435 4023 510 245 430 351 233 432 500 600 1201 1557 1465 462 223 475 617 507 344 357  100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124  235 225 367 510 342 306 619 361 363 465 343 3307 419 427 295 222 236 286 271 813 1430 920 456 557 295  125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149  251 336 287 586 161 281 323 212 432 249 120 200 171 369 167 249 348 3741 230 103 283 243 243 393 409  150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174  244 426 404 579 241 181 142 191 318 233 135 143 172 241 107 166 213 142 173 101 149 177 3414 126 131  175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199  53 101 118 136 164 366 350 563 598 319 163 123 196 99 248 93 45 200 144 376 99 142 167 132 187  200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224  173 364 179 3388 178 112 129 78 209 58 171 245 218 256 194 268 122 19 214 63 315 89 94 132 72  225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249  144 62 89 116 93 55 94 46 224 1613 39 56 47 94 60 59 34 218 170 212 127 73 93 161 69  250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274  256 38 54 37 78 78 54 163 44 141 66 74 113 106 1376 41 13 52 27 46 54 85 231 168 64  275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299  24 67 38 54 31 64 63 41 128 53 51 87 73 35 73 133 73 81 56 79 870 70 45 28 48  300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324  27 135 78 135 172 48 35 16 91 57 54 60 22 108 58 24 95 63 47 37 33 29 18 38 26  325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349  1346 61 35 16 27 27 27 43 39 259 65 30 32 15 34 68 51 37 18 51 16 79 48 32 27  350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374  29 6 10 7 45 25 1390 32 42 47 10 64 33 55 377 702 125 79 22 54 44 53 28 73 98  375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399  47 72 53 12 32 35 38 51 153 1375 36 111 18 20 37 19 39 102 41 176 136 332 92 38 60  400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424  146 129 97 39 33 48 82 49 56 95 49 125 34 26 41 1539 100 11 16 8 13 57 6 38 129  425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449  105 226 65 36 27 12 28 105 8 6 20 9 32 31 21 17 25 27 49 18 49 1000 2 10 34  450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474  4 75 32 50 24 37 52 82 47 9 72 32 53 21 13 45 26 38 1 12 27 86 22 40 8  475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499  12 954 4 21 23 26 51 16 56 57 54 71 72 83 22 5 23 26 40 16 10 10 17 13 12  500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524  16 39 8 43 9 13 5 1040 22 20 7 7 19 4 134 54 30 11 45 16 12 45 13 25 3  525 527 528 529 530 531 532 533 534 535 536 537 538 539 541 542 543 544 545 546 547 548 549 550 551  2 41 31 4 7 45 29 10 30 3 9 1011 2 4 3 49 6 12 31 174 39 26 98 5 61  552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576  48 7 65 44 33 29 20 23 21 22 10 63 44 33 27 14 867 7 17 47 17 4 11 4 14  577 578 579 580 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602  63 29 9 4 4 23 6 33 13 4 2 37 52 1 22 20 12 15 20 13 18 540 7 11 12  603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627  15 27 8 7 42 38 14 5 7 8 20 12 45 1 3 5 36 23 22 4 6 12 5 5 19  628 629 630 631 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653  20 482 8 9 5 17 1 2 6 20 61 7 7 3 1 28 5 9 11 7 17 5 17 6 2  654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 672 673 674 675 677 678 679 682  7 1 5 11 6 6 554 41 4 6 1 12 31 1 117 27 9 23 66 1 14 8 22 22 47  683 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 702 703 705 706 707 708 709 710  25 2 3 37 20 5 464 34 3 6 14 1 1 5 10 74 52 5 9 6 14 5 18 4 32  711 712 713 714 715 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736  4 6 10 33 3 14 16 12 12 605 6 21 7 2 41 32 9 115 231 81 14 7 3 38 9  737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 754 755 756 757 758 759 760 761 762  33 7 7 2 15 15 21 19 38 12 10 2 656 17 5 1 5 10 4 33 15 38 65 84 4  763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787  61 2 14 25 16 19 3 42 16 30 37 18 4 18 1 5 19 720 8 1 3 4 11 2 17  788 789 790 791 792 793 794 795 796 797 799 800 801 802 804 805 806 808 809 810 811 812 814 815 816  2 4 24 65 25 2 46 7 1 4 14 7 4 42 25 1 8 6 9 3 329 29 11 5 6  817 818 819 820 821 822 823 824 825 827 829 830 831 832 834 835 836 837 838 840 841 843 844 845 846  18 5 19 21 25 12 9 14 3 48 12 4 1 2 15 13 16 8 2 1 513 5 9 42 25  847 848 849 850 851 852 853 854 856 857 858 859 860 861 863 864 865 866 867 868 869 871 872 873 874  55 7 7 1 19 12 15 2 65 30 4 1 1 3 4 2 16 1 4 3 5 5 469 2 3  876 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 896 897 898 899 901 902 903  6 2 2 47 3 5 9 51 2 5 2 16 35 2 2 7 2 26 6 5 2 3 10 779 30  904 905 906 907 910 911 912 913 914 915 916 918 919 920 921 922 923 925 926 927 928 929 931 932 933  5 11 4 5 2 52 15 23 14 14 4 10 20 7 5 2 4 3 1 18 1 1 4 8 582  934 935 936 937 938 939 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 961  19 5 1 1 2 16 16 7 1 8 6 1 3 7 26 1 14 32 6 7 3 4 4 5 6  962 963 964 965 966 968 969 970 971 972 973 974 975 976 978 980 982 983 984 985 986 988 990 991 992  5 2 486 1 7 1 2 39 2 8 27 15 6 9 3 11 6 7 32 9 2 6 3 1 8  994 995 996 997 998 999 1001 1003 1004 1005 1006 1007 1008 1009 1010 1011 1013 1014 1015 1016 1017 1018 1019 1021 1024  312 3 1 2 3 4 3 8 32 6 14 3 3 2 7 5 5 1 1 18 2 3 26 4 6  1025 1026 1027 1028 1030 1031 1033 1034 1035 1036 1037 1038 1039 1040 1042 1043 1045 1046 1047 1050 1051 1052 1053 1054 1055  266 1 3 3 8 7 9 31 28 3 2 17 3 3 1 7 2 29 5 1 6 3 1 13 253  [ reached getOption("max.print") -- omitted 502 entries ] | |  | | |  | | --- | | > data3$S\_Date[data3$Exp\_tenure==1][1:10]  [1] "2012-11-14" "2014-04-30" "2014-03-12" "2013-09-26" "2012-03-29" "2014-05-20" "2014-03-02" "2014-04-12" "2014-10-24" "2012-11-14"  > data3$E\_Date[data3$Exp\_tenure==1][1:10]  [1] "2012-11-15" "2014-05-01" "2014-03-13" "2013-09-27" "2012-03-30" "2014-05-21" "2014-03-03" "2014-04-13" "2014-10-25" "2012-11-15"  > data3$Exp\_tenure[data3$Exp\_tenure < 30] <- 0  > data4 <- data3  > sort(table(data3$Preferred\_location),decreasing=TRUE)  No\_Pref IHFG IIDB IIBD JABD IHJB IJCE IJBG IJJI JBDB IJAB JECD JBEI JEEH IHHH IIAI JCBC IIJJ IIGA JEJJ JBID JEAE  200352 53323 14238 8202 6004 3595 3535 3156 1530 1469 772 579 444 238 184 177 127 111 93 88 84 82  IJBH JDEC JAGD JDCB JCEB JCDD JBBE IHDJ JCJG JDAE JDEF JCGE JAAJ IHGI JBBG JBGH JDDE IJAE JADD JCIH JBDI IHJC  81 74 63 62 61 55 48 46 46 45 42 38 36 34 34 34 31 30 29 28 25 23  JDII JDIB IJDJ JAHE JAJJ JBGD JDCH JEFE IIIF JAFJ JDDD JDFF JEEJ JEHI IHGB IJJA JCJE JEBC IJHI JCCD IIHH JAEB  21 20 19 19 19 19 19 19 18 17 16 16 15 15 14 14 13 13 12 12 11 11  JADH JBEB JBGE JDGJ JEEI JCFF JDCA JDFA JDFJ JDHI IHHA IIDE IIHJ JCIC JDIG IHDF JAHF JCFB JEIF IHHC IIGG IJBF  10 10 10 10 9 8 8 8 8 8 7 7 7 7 7 6 6 6 6 5 5 5  JAHG JCHJ JDDB JDID JEFF IJGJ JADF JAEF JAEG JCIG IHEB IICE IIDC JACJ JAJC JBAB JBEF JCGB JCJA JDHD JEAH JEFD  5 5 5 5 5 4 4 4 4 4 3 3 3 3 3 3 3 3 3 3 3 3  JEJF JEJG IHID IJHE IJIG IJJG JACD JACF JAGH JBAG JBAJ JBBF JCAF JCBE JCED JCHA JCHF JDAG JEJI IHFA IHHD IHHF  3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 1 1 1  IIAB IIAH IIDD IIIH IJAD IJAG IJDH IJFI IJGB IJGE JAID JBFH JBJA JCAA JCEC JCFJ JCIB JCIF JDCF JECF JEDC JEEC  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  JEGD  1  > data4$Preferred\_location <- as.character(data4$Preferred\_location)  > data4$Is\_PlNo\_Pref <- ifelse(data4$Preferred\_location=="No\_Pref",1,0)  > data4$Is\_PlIHFG <- ifelse(data4$Preferred\_location=="IHFG",1,0)  > data4$Is\_PlIHJB <- ifelse(data4$Preferred\_location=="IHJB",1,0)  > data4$Is\_PlIIBD <- ifelse(data4$Preferred\_location=="IIBD",1,0)  > data4$Is\_PlIIDB <- ifelse(data4$Preferred\_location=="IIDB",1,0)  > data4$Is\_PlIJBG <- ifelse(data4$Preferred\_location=="IJBG",1,0)  > data4$Is\_PlIJCE <- ifelse(data4$Preferred\_location=="IJCE",1,0)  > data4$Is\_PlIJJI <- ifelse(data4$Preferred\_location=="IJJI",1,0)  > data4$Is\_PlJABD <- ifelse(data4$Preferred\_location=="JABD",1,0)  > data4$Is\_PlJBDB <- ifelse(data4$Preferred\_location=="JBDB",1,0)  > ## Institute\_location  > sort(table(data4$Institute\_location),decreasing=TRUE)  IIDB JABD IIBD IHJB IJCE JEJJ JBDB JBEI IJJI IIJJ IHJC IJGB JAGD IJAE JEEH IIIF JCBC IJBG JDCF IJAB IHHH JEHI JBGH JDAE JECD JDGH IHHF JCCD IIGA JADH  53323 29982 26714 14402 14128 11779 9824 9527 8851 4080 3553 3380 3151 2840 2776 2649 2609 2361 2356 2285 2176 2124 1996 1965 1945 1786 1641 1631 1625 1458  JDCA JACD JAID JCEB JBEB IIAI JEIF IHDF JAJJ IIDC JAHG JAAJ JACJ JDII JCJE IIGE IJGJ JEEI JBID JBBE JBBF IJED JAHE JEGE JCJG JDIB JEJI IJBH IHID IJJA  1428 1298 1272 1246 1233 1185 1122 1074 1049 1028 1017 990 970 946 929 923 893 877 801 779 730 719 703 689 655 623 616 608 588 567  JADF JCGB JCGE IJBF IHDJ IJIG IIDA JEAJ IHEG JCDD JCHJ JBGD JEFD IHHC JDEJ JCAE JDDD JCAA JDBC JDFA JAEB JDEC JCIG IIDH JBBG JADD IIIG JDHI IIHG IJDI  554 538 532 500 485 471 459 455 454 454 450 449 448 446 429 410 398 386 384 384 379 374 369 366 356 339 329 312 307 305  IIIH JAGH IHFJ JEDC JDDH JDFF JDJG JBGJ JCJI IJDH JEFF JAIA JEIA JAEF JEAI JDGJ JCHC JBAJ JDHD JEAH IIHH IHFI JEAE JECF JCFH IIJI IJIB JADA JDID JDDB  300 290 288 287 282 282 280 276 276 268 267 264 264 261 260 259 254 251 251 246 244 240 236 232 231 227 225 222 219 218  JCBE JECG JEHE JAAI JBFD IHGD IIBH JEFE JCIC JADJ JEGA JBIB JBEC JBFC IIAJ JCCF IIIA JABH JAHD IIEF IIAC JACE JCFF JCGH IIJH JACB JDJE IHEE JCCB JCJF  217 217 213 209 209 201 195 195 193 190 189 187 182 181 180 177 176 172 169 167 165 165 164 163 162 161 160 157 157 156  JEEJ IHHA IIAH JEIH JCIF JDDJ IIGG JEII IJHI IIDI JCCH JEAA JECA JBHI JBIC IHEB IHHD IICH JCCG IIAB JCFB JBHH IIDF JAHA IIFF JCEE IHIE JDEG JEGI IHIF  155 153 152 151 150 149 148 147 144 143 142 142 139 138 136 135 134 134 131 129 127 126 124 124 123 121 120 120 119 117  IHGH JABA JCJJ JDAJ JCJA JBAG JBGB JABG JBIA JBII JDEA IHHE JDEH IICE IHIJ JADE JDIF JAGG JDHG IJJE JBJB JBJJ JAGA JBBA JCBA JDHB JEID JCFJ JEHD IIJB  114 114 114 114 113 111 111 109 109 108 105 104 103 102 101 100 100 98 94 93 93 93 92 92 92 92 92 89 86 85  IJBA JBAB JEJF JDFC JBAA JBJD JEFC IICD IJJG IIBG JAAG JDGI JBGF JDJA JEJG JAAD JBBC JEBJ JBBI JCED JEEG IJDA JAEA JAGC JCDH JEBC IIFC IIFG IJID JCAI  85 85 85 84 83 82 82 81 81 80 80 80 79 79 79 78 77 76 74 74 73 72 72 72 71 71 70 70 70 70  JDGD IIDJ JCAB JDHA JEGH JBHC JEGB JAJA JDJB IIAF IIAG IIDE IIJA IJIE JDAF JCDJ JEJD IIFH JCEC JDIE JEBG JEDB JAII JBJA JCDE JDAG JBCE JBED JCAC JEDH  70 69 68 67 67 66 66 65 65 64 64 64 64 64 64 63 63 62 62 62 61 61 60 60 60 59 58 57 57 57  IJFD IJII IJIJ JBDD JCCJ JBBJ JBDH JCGA JCHF JEFB JABI JABJ JBCG JDCE IIGC IJFI IJHF JEGF IJFJ JCFD JDIJ JAIJ IIBC IIFJ IJJC JBHA JDDA JEBA IIHE IIHJ  55 55 55 55 55 54 54 54 54 54 53 53 53 53 52 52 52 52 51 51 51 50 49 49 49 49 49 49 48 48  IHJE IIDD IIGI IIJD JDED JDEI IIEH IJHE JBHE JBIJ JECJ JABC JBBD IJAH IHDD JBGE JEAG IJFB JBEF JCFA JDFI JEAC IIIB IJJD JACF JAJC JBDA JDHH IHHJ IIEB  46 46 45 45 45 44 43 43 43 43 43 42 42 41 40 40 40 39 39 39 39 39 38 38 38 38 38 38 37 37  IIID JAJF JAFB JDHJ JEDG IICC JAIG JBJC JCFI JDGA IHED IJEF JAAC JBFJ JEGG JBAF JDAC JACA JBAD JBHF IJBE IJCJ JCIJ JDHE IHFB IIDG IJCI IJGH JCDB IIHI  37 37 36 35 35 34 34 34 34 34 33 33 33 33 33 32 32 31 31 31 30 30 30 30 29 29 29 29 29 28  IJEC IJGA JADG JCCI JDGB JEIB IJCB JBIG JBJI JCAD IHEI IIEE IIHD JBDC JCHE IJEA IJHC JBAI JCGF JCIB JDBJ JDEE IIHC IJAC JDBE JDEB JEFJ JEHJ IIEA IJJJ  28 28 28 28 28 28 27 27 27 27 26 26 26 26 26 25 25 25 25 25 25 25 24 24 24 24 24 24 23 23  JAAE JBEA IJDJ IJEB IJJB JAIC JBCH JDCG JDFH JEAD IICB JBDE JCIA JDAA JDBD IIGF IJGC IJGD JAJE JCGC JDAH JDDC JDJI IHGG IHGI IHIH IIFI IJBI IJFC JDDF  23 23 22 22 22 22 22 22 22 22 21 21 21 21 21 20 20 20 20 20 20 20 20 19 19 19 19 19 19 19  JEDA JEDI IHEJ IHGB IJEG IJHB JAGB JAJD JECB JBCC JDCI IJDB JABF JAJG JCFC JEAB JEFH IHHI IJAI JCDA JCEI IHDI IIFB IIJF JACC JCIE JAEG JAFJ JAHJ JCFE  19 19 18 18 18 18 18 18 18 17 17 16 16 16 16 16 16 15 15 15 15 14 14 14 14 14 13 13 13 13  JDJC JEGC IIAD IIBA IJCC IJHA JAAF JAEE JAEI JAEJ JBFE JCBB JCBF JCJB JEJA IHGE IIED IJDG JAGE JCIH JDHF JDIA JECI JEGD JEJE IIEI IIEJ IJAG IJHG JBEJ  13 13 12 12 12 12 12 12 12 12 12 12 12 12 12 11 11 11 11 11 11 11 11 11 11 10 10 10 10 10  JCAF IHGF IICF IICJ IJAA IJGF IJIH JAFC JBCJ JCEA IHFH IIEC IIJC IJAD IJEI IJFE JBCI JBEE JDIG IHJD IIFD IJCD IJIA JADC JAFG JAGF JAHI JBHG JCGJ JDFJ  10 9 9 9 9 9 9 9 9 9 8 8 8 8 8 8 8 8 8 7 7 7 7 7 7 7 7 7 7 7  JDIC JEBD JEHH IIHA IIII IJAF IJGG JADB JAFI JBDF JBFI JBIH JCCA JCCC JCHD JDCH JDGF IHIC IIGH IIHF JAGJ JBBH JCBI JCDI JCEG JDEF JDJF JEJB JEJH IHDG  7 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6 6 5 5 5 5 5 5 5 5 5 5 5 5 4  IHGJ IHJA IHJH IJJH JABE JAFA JAHC JAIE JBGG JBJH JCBG JDCB JDDE JDJD JEFA JEHF IHDC IHGC IIAA IIAE IICG IIFE IJCA IJCH IJFG IJIF JADI JAFE JBDI JBFH  4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3  JCHH JCII JDIH JEBH JEDD JEED JEFI JEHG JEIC IHEF IHFD IHIA IIBJ IIIC IJDE IJFA IJIC JAAB JABB JAEC JAED JBCA JBFG JBGI JCHA JDBI JDHC JECC JEGJ IHDE  3 3 3 3 3 3 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 1  IHEH IHGA IHJJ IIHB IIJE IJEH IJFF IJHD IJJF JAAH JAHH JAIB JAIF JAJB JBAC JBCB JBCD JBCF JBIF JBJG JCDC JCDF JCDG JCEH JCGD JCGG JCHB JCJD JDAB JDAI  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  JDBA JDCJ JDDI JDFG JEBE JEBF JEDJ JEEA JEEC JEEF JEHC  1 1 1 1 1 1 1 1 1 1 1  > data4$Institute\_location <- as.character(data4$Institute\_location)  > data4$Is\_InstLoc\_IHHF <- ifelse(data4$Institute\_location=="IHHF",1,0)  > data4$Is\_InstLoc\_IHHH <- ifelse(data4$Institute\_location=="IHHH",1,0)  > data4$Is\_InstLoc\_IHJB <- ifelse(data4$Institute\_location=="IHJB",1,0)  > data4$Is\_InstLoc\_IJCE <- ifelse(data4$Institute\_location=="IJCE",1,0)  > data4$Is\_InstLoc\_IHJC <- ifelse(data4$Institute\_location=="IHJC",1,0)  > data4$Is\_InstLoc\_IIBD <- ifelse(data4$Institute\_location=="IIBD",1,0)  > data4$Is\_InstLoc\_IIDB <- ifelse(data4$Institute\_location=="IIDB",1,0)  > data4$Is\_InstLoc\_IIGE <- ifelse(data4$Institute\_location=="IIGE",1,0)  > data4$Is\_InstLoc\_IIIF <- ifelse(data4$Institute\_location=="IIIF",1,0)  > data4$Is\_InstLoc\_IIJJ <- ifelse(data4$Institute\_location=="IIJJ",1,0)  > data4$Is\_InstLoc\_IJAB <- ifelse(data4$Institute\_location=="IJAB",1,0)  > data4$Is\_InstLoc\_IJAE <- ifelse(data4$Institute\_location=="IJAE",1,0)  > data4$Is\_InstLoc\_IJGB <- ifelse(data4$Institute\_location=="IJGB",1,0)  > data4$Is\_InstLoc\_IJBG <- ifelse(data4$Institute\_location=="IJBG",1,0)  > sort(table(data4$hometown),decreasing=TRUE)  IIDB JEJJ JABD IIBD IJCE IJJI IHJB JBEI IHHH JBID JBDB JDAE JEHI JADH JCBC IIGA JEEH IJBG JECD JDFA IJAB IJHA IJAE JAHG IHGI IIIF JAAJ JADD JAGD IIAI  41679 26283 22092 13112 12208 10591 5225 5115 5006 4940 4395 3274 2786 2675 2513 2326 2246 2107 2102 2045 2022 1838 1826 1792 1527 1521 1504 1473 1467 1439  IJIG JBEB IHJC JDIB IIJJ JBBE JCAA IIDC IHFI JEDC JEIF JDEC JCGE JCDD JCCD IHDF JEEI JBAB JEFF JCHJ JBGD IJBH IJGJ JCAE IHDJ JDCF IJJA JAEB JCEB JBBG  1384 1356 1284 1277 1228 1197 1168 1131 1094 1086 1072 1069 1039 1037 994 990 919 906 852 825 822 769 746 719 712 684 682 681 680 672  IJBF JDII JAHE JBCI IHED IJIE JEAH JBAF JBHE JACJ JDGH JEJI IIIG JEJD JCCA JBFA JCCF JABF IIDA JDJA JEHE JECF JDDD IIAF JDEE IJJD JEFE JADF JAJC JCIC  665 661 647 637 636 622 602 594 590 586 577 575 570 569 552 550 546 528 524 512 511 510 505 501 494 492 490 488 488 486  IICE IJIB JBAJ JBBF JDHD IIDD JBHI JCIG JCJA IJED IIJI JDID JCAI JBGJ IIBG JACD JBIF JCGF IHHC IIAH IIIH JCFB JDDJ JEBC JCJI JBEF JBGE JCIB JCEE JDHI  481 455 453 448 442 439 432 428 426 423 419 418 414 400 395 395 394 393 392 392 385 385 384 383 379 369 360 357 356 355  IJGB IJAC JDEA JAAC JCCH JAID JCGB JCGH JDDB JEAJ JBBJ JEEJ JCHA JDCA IJJG IIHH JACI JAHB IHIF IIIA JCBE IHEB JADJ JEDD JCHH JDGJ JCJG JCJB IIAE JBII  354 349 348 347 346 345 344 344 343 338 337 333 328 326 317 314 313 313 306 305 304 299 299 299 298 295 290 289 285 284  JCIF JBHJ JBJC JABH JECI IJCB JDFC JBED JCCG JCDF IJFJ JAEH JBBA JDHA IIHJ JABB JBFG IHHF JDEJ JAJJ JEAE JBJI JEFD JCFF JCAF JEDH IIHD JADA IJHI IIFI  279 277 274 273 270 267 267 266 265 265 260 255 253 251 249 248 248 246 241 238 238 237 233 231 225 225 223 222 221 218  IIHE JCJD JCED JACC IIEC JDGI IJCH JDGD IIJH JECA JEIB JAGG JBDA IIGG JEHD JEEB JEFB IHJJ JEGD JDFF IHHG IJDJ JDAG JCID JCEG JDHE IJHF IIBC JCHC IHDC  218 217 216 215 213 213 211 211 210 210 210 207 207 205 203 201 201 199 195 192 191 191 191 190 186 184 183 180 179 178  IJIF JBAG JBAC JAFE IJDE JEHH JBHD JEII JAGC JEFC JBAH IJHE JDIG JCCC IJFG JDGC IHGF JAFG IICG IIHA IHHE IIAJ JDGE JAGH IHHD IJEB JAHD JAEG JBIC IJCI  178 175 174 173 172 172 171 170 168 167 166 163 163 162 160 160 157 156 155 154 152 152 152 151 149 149 148 147 147 145  JCAC JEIC JDAI JABJ IICD IJAF IJHB JDEF IJEH IJGG JAFF IJBI JBEC JCIE JDEG JEIG IIGE IJBB IJJB JBEJ JDGG JEIE IIFD JCFE JDJE JCAG JCEC JEAC IJBJ IIJG  145 145 144 143 142 141 140 139 138 138 138 136 136 135 135 135 134 132 132 131 131 131 130 130 129 128 128 122 121 116  JAAI JBJE JDIA JDHC JEHC IHHJ JBJA IJDH JAGJ JACE IIJA JECB JACG JCBG JEIJ JEAG IIII JDHJ JEIH JBFH JBHB JBJG JCIA IHHI JAHI JDAH JDHF JDHG JEBJ IHGB  116 116 116 115 115 114 114 113 113 112 111 111 110 110 110 109 108 108 108 107 107 107 106 105 104 104 104 104 104 103  JCHF IHEE JAAH IICF IIJF JAGF JEGE JEJG IHIA IJII JDCD JDFI JEDF IJDG JAEJ JCDJ JCJE JABC IHEC JAJA JBFD IHGD JDBE JECE JCEF JCHI IIDH IIIC IIBH IIHB  103 102 102 101 100 100 100 100 99 99 99 99 99 98 98 98 98 97 96 96 96 95 95 95 94 94 92 92 91 91  JBJB JEDA IIDJ JDFD IJFF JAHH JDIH JDAC JAFH JAJH JBHF IHFE IJFC JCDH JCEJ JEHF IJEJ JBFC JDJJ JAFI JAIA JBCC IICA JAFJ JCBD JDEB JEEF JBGA JCHG JEGA  91 91 90 90 89 88 88 87 86 86 85 84 84 84 84 84 83 82 82 81 81 80 78 78 78 78 78 77 77 77  IIFE IJAD IJID JEFH IHGG IIBA JEGJ JACB JCCI IJDI JBFE JBIB JCBI JABI JCHD JDAB JDEI JEFA IHFA JCGI IIAA IIHG JCAB JCFI JEFG IJGI IJIC IJIH JAAB JBBH  76 76 76 76 75 75 75 74 74 72 72 72 72 71 71 71 71 71 70 70 69 69 68 68 68 67 67 67 67 67  JCDG JDDH IHFF IHIG IIBB IIJC IJBD JAFA JBCD JBJF JCFA JADC IHJA IICB IJIA IHGJ IIAC IJDB JAIB JEBD IICJ IJAH JBCH JEJF JBIH JDJG IHJI IJCJ IIEA JAIE  67 67 65 65 65 65 65 65 65 65 65 64 63 63 63 62 62 62 61 61 60 60 60 60 59 59 58 58 57 57  JCCB JCJC JEDE IHIB IJEI JEAB IIDE IJCD JBIG JBJH JCCE JECG JEEC IHFJ JAFD JAGB JBFJ JDAF JDCC JDDA JADI JBGG JCDE IHIJ IJHG JBDJ JBHG JCAH JEBF JEEA  57 57 57 56 56 56 55 55 55 55 55 54 54 53 53 53 53 53 53 53 52 52 52 51 51 51 51 51 51 51  IJDD IJGE JDDG IJAG IJAI JDBC IIBJ JBGI JCHE JEFI IIFF IIHI IJCF IJEE IJFH JAEC JCCJ JCFJ JDBG JBCJ JBEE JEAI IHEF IHGH IICI IJIJ JCBB JEBH JEHB JDCB  50 50 50 49 49 49 48 48 48 48 47 47 47 47 47 47 47 47 47 46 46 46 45 45 45 45 45 45 45 44  JEBG JECJ JAEA JDDI IHIC IJCA JCDA JCGD JDBB JEAD JEHA IHJH IJHD JBGH JBJJ JCAJ JEGI IHFD IHHA IIAB JEBI IHDD IJGC JAJD JDJB IIBF IIJD JAHA JDBI JDFE  44 44 43 43 42 42 42 42 42 42 42 41 41 41 41 41 41 40 40 40 40 39 39 39 39 38 38 38 38 38  IJEC IJFB IJFD JBDF JEAF IIGH IJHJ JCEI JDBD JDEH IHHB IIBE IIEG JAEI JAFB JBCB JDBJ JDDF IHEI IJFA JDBF JEHJ IJAJ IJBC IJHH IHEA IICC IIGC IIID JCHB  37 37 37 37 37 36 36 36 36 36 35 35 35 35 35 35 35 35 34 34 34 34 33 33 33 32 32 32 32 32  IHDG IHEG IHEH JAED JCIJ JDJD IIBI IIJE IJGD JACA JADE JAFC JBBB JCJH IIHF IJDF JCFG IHJG JBEH JDGF JEBB JEGF IHDE IIDG JBCF JBFF IHDH IJGA JAHF JBHH  31 31 31 31 31 31 30 30 30 30 30 30 30 30 29 29 29 28 28 28 28 28 27 27 27 27 26 26 26 26  JCBJ JDJI IJFE JAEE JAJF JBFI JDCJ JDJF JEEG JEGH JEIA JAAA JBFB JBGB JCIH JDFB IHFH IIDF IJGH IJJJ JAGA JBAE JDAD JDFJ JDJC JEDJ IHJD IJBE JBIJ JCDB  26 26 25 25 25 25 25 25 25 25 25 24 24 24 24 24 23 23 23 23 23 23 23 23 23 23 22 22 22 22  JCGG JDBA IIGJ JDDC JDGA JECH JEDG IHJE IIFA JABA JAIH JAJE JBAI JDFG JEJA IIIJ JBGF JCBF JEBE IHGC IIEI IJCG JABG JBCA JEID IJDC JAIF JDAA IIGD IJEF  22 22 21 21 21 21 21 20 20 20 20 20 20 20 20 19 19 19 19 18 18 18 18 18 18 17 17 17 16 16  IJJC JAAE JACH JBDD IIHC JAAF JABE JAGI JDAJ JDCH JDGB IHGE JAII JCFC JDDE JEDI JEED JEGB IHDI IHFC IHID JCAD JEGC IHJF IIAG IICH IIEF IIIE IJGF JCBA  16 16 16 16 15 15 15 15 15 15 15 14 14 14 14 14 14 14 13 13 13 13 13 12 12 12 12 12 12 12  JCBH JCDI JCGC JDJH JEFJ JEJC IHIE JAJB JBAD JBEA IHEJ IIED IIGF JACF JAJG JBDE JBIE JCGA JDCI JDHH IIAD IIFH IJEG JAEF JCEA JDED IHIH IIFG JAHC JBDG  12 12 12 12 12 12 11 11 11 11 10 10 10 10 10 10 10 10 10 10 9 9 9 9 9 9 8 8 8 8  IIDI IIEB JBBI JCDC JDBH JEGG JEHG JCFH JEEE IJCC IJDA JADG JAHJ JAIG JCII JEDB JEJB IIEH IIFB IJEA IJFI IJJH JBAA JBJD JDCG JDIF JDIJ IHII IIFC IJHC  7 7 7 7 7 7 7 6 6 5 5 5 5 5 5 5 5 4 4 4 4 4 4 4 4 4 4 3 3 3  JBBC JBDH JCJF JEAA JECC IIEE IIJB IJJF JAAG JAJI JBDC JCFD JCGJ JCJJ IHFB IHGA IIIB JAAD JADB JDCE JDHB JEJE  3 3 3 3 3 2 2 2 2 2 2 2 2 2 1 1 1 1 1 1 1 1 | | | > data4$hometown <- as.character(data4$hometown)  > data4$Inf\_hometown <- ifelse(data4$hometown %in% c("IHGI","IHHH","IHJB","IHJC","IIAI","IIBD","IIDB","IIGA","IIIF","IJAB","IJAE","IJBG","IJCE","IJHA","IJIG",  + "IJJI","JAAJ","JABD","JADD","JADH","JAGD","JAHG","JBBE","JBDB","JBEB","JBEI","JBID","JCBC",  + "JCDD","JCHJ","JDAE","JDFA","JECD","JEEH","JEHI"),1,0)  > sort(table(data4$Degree),decreasing=TRUE)[1:10]  B.Tech B.E MCA MBA  91752 46071 33849 14069  B.Com Post Graduate Dimploma in Management B.Com (Hons.) B.Sc  8232 5442 5397 5161  Bachelor of Business Admininstration M.Tech  4584 4222  > data4$Degree <- as.character(data4$Degree)  > data4$Is\_BTech <- ifelse(data4$Degree=="B.Tech",1,0)  > data4$Is\_BE <- ifelse(data4$Degree=="B.E",1,0)  > data4$Is\_MCA <- ifelse(data4$Degree=="MCA",1,0)  > data4$Is\_MBA <- ifelse(data4$Degree=="MBA",1,0)  > data4$Is\_BCom <- ifelse(data4$Degree=="B.Com" | data4$Degree=="B.Com (Hons.)",1,0)  > data4$Is\_PGDM <- ifelse(data4$Degree=="Post Graduate Dimploma in Management",1,0)  > data4$Is\_BSc <- ifelse(data4$Degree=="B.Sc",1,0)  > data4$Is\_BBA <- ifelse(data4$Degree=="Bachelor of Business Admininstration",1,0)  > data4$Is\_MTech <- ifelse(data4$Degree=="M.Tech",1,0)  > ## Stream  > sort(table(data4$Stream),decreasing=TRUE)[1:10]  Computer Science & Engineering Computer Science Electronics and Communication Engineering Computer Application  39861 28320 21789 17269  Commerce Information Technology Mechanical Engineering Marketing  15551 15505 11599 9094  IT Commerce With Maths  6479 6138  > data4$Stream <- as.character(data4$Stream)  > data4$Is\_StrCSE<- ifelse(data4$Stream=="Computer Science & Engineering",1,0)  > data4$Is\_StrCS<- ifelse(data4$Stream=="Computer Science",1,0)  > data4$Is\_StrECE<- ifelse(data4$Stream=="Electronics and Communication Engineering",1,0)  > data4$Is\_StrCoAp<- ifelse(data4$Stream=="Computer Application",1,0)  > data4$Is\_StrCommerce<- ifelse(data4$Stream=="Commerce",1,0)  > data4$Is\_StrIT<- ifelse(data4$Stream=="Information Technology",1,0)  > data4$Is\_StrME<- ifelse(data4$Stream=="Mechanical Engineering",1,0)  > data4$Is\_StrMarketing<- ifelse(data4$Stream=="Marketing",1,0)  > ## Profile  > sort(table(data4$Profile),decreasing=TRUE)[1:10]  Intern No\_Exp Content Writing & Social Media Marketing Web Development  130398 101713 1822 1617  Marketing Content Writer Content Development Graphic Design  1563 1379 1348 1051  Android App Development Trainee  947 936  > data4$Profile <- as.character(data4$Profile)  > data4$Is\_Prof\_intern <- ifelse(data4$Profile=="Intern",1,0)  > data4$Is\_Prof\_No\_Exp <- ifelse(data4$Profile=="No\_Exp",1,0)  > data4$Is\_Prof\_Marketing <- ifelse(data4$Profile=="Content Writing & Social Media Marketing" | data4$Profile=="Marketing",1,0)  > data4$Is\_Prof\_Content <- ifelse(data4$Profile=="Content Writer" |data4$Profile=="Content Development" ,1,0)  > sort(table(data4$Location),decreasing=TRUE)[1:10]  IIGB IIDB JEJJ IIBD JABD IJCE IHJB IJJI IJBG JBDB  184995 18130 11246 11000 9997 5599 5228 3625 3230 3098  > data4$Location <- as.character(data4$Location)  > data4$Is\_LocatIIGB <- ifelse(data4$Location=="IIGB",1,0)  > data4$Is\_LocatIIDB <- ifelse(data4$Location=="IIDB",1,0)  > data4$Is\_LocatJEJJ <- ifelse(data4$Location=="JEJJ",1,0)  > data4$Is\_LocatIIBD <- ifelse(data4$Location=="IIBD",1,0)  > data4$Is\_LocatJABD <- ifelse(data4$Location=="JABD",1,0)  > ## Internship\_Profile  > sort(table(data4$Internship\_Profile),decreasing=TRUE)[1:10]  Web Development Software Development Content Writing Android App Development  18633 10880 10421 9781  Marketing Business Development Graphic Design Content Writing & Social Media Marketing  7606 6634 6117 5724  Sales & Marketing Web & Mobile App Development  5676 5478  > data4$Internship\_Profile <- as.character(data4$Internship\_Profile)  > data4$Is\_IP\_WD <- ifelse(data4$Internship\_Profile=="Web Development",1,0)  > data4$Is\_IP\_SD <- ifelse(data4$Internship\_Profile=="Software Development",1,0)  > data4$Is\_IP\_CW <- ifelse(data4$Internship\_Profile=="Content Writing",1,0)  > data4$Is\_IP\_AD <- ifelse(data4$Internship\_Profile=="Android App Development",1,0)  > data4$Is\_IP\_MK <- ifelse(data4$Internship\_Profile=="Marketing",1,0)  > data4$Is\_IP\_BD <- ifelse(data4$Internship\_Profile=="Business Development",1,0)  > ## Skills\_required  > sort(table(data4$Skills\_required),decreasing=TRUE)[1:10]  No\_Skill  258267  Matlab (.M Files) And Simulink  796  Android Application Development  784  Java,SQL,Hibernate (Java)  620  Java,Python  553  VB Scripting,HTML,SQL,Oracle,Linux Programming,MS-Excel,Shell Scripting,PERL SCRIPTING  448  Raspberry Pi,Arduino,PCB Design  407  English Proficiency  394  Java,Android Application Development  384  C++,C++,C++,C++,C++,PHP,PHP,PHP,PHP,PHP,MySQL,MySQL,MySQL,MySQL,MySQL,HTML,HTML,HTML,HTML,HTML,CSS,CSS,CSS,CSS,CSS  358  > data4$Skills\_required <- as.character(data4$Skills\_required)  > data4$Is\_SR\_No <- ifelse(data4$Skills\_required=="No\_Skill",1,0)  > sort(table(data4$Internship\_Location),decreasing=TRUE)[1:10]  IIDB IIBD IIGB JABD JEJJ IJBG IHJB IJCE JBDB IJJI  53997 51714 50433 41138 34470 16881 14037 12796 4714 4352  > data4$Internship\_Location <- as.character(data4$Internship\_Location)  > data4$Is\_IntrnLoc\_IIDB <- ifelse(data4$Internship\_Location =="IIDB",1,0)  > data4$Is\_IntrnLoc\_IIBD <- ifelse(data4$Internship\_Location =="IIBD",1,0)  > data4$Is\_IntrnLoc\_IIGB <- ifelse(data4$Internship\_Location =="IIGB",1,0)  > data4$Is\_IntrnLoc\_JABD <- ifelse(data4$Internship\_Location =="JABD",1,0)  > data4$Is\_IntrnLoc\_JEJJ <- ifelse(data4$Internship\_Location =="JEJJ",1,0)  > # converting Internship\_deadline to factor  > data4$Internship\_deadline <- as.character(data4$Internship\_deadline)  > data4$Internship\_deadline <- as.Date(data4$Internship\_deadline, "%d-%m-%Y")  > # creating dummy variables of Current\_year ,Experience\_Type etc  > #install.packages("dummies")  > library(dummies)  > dummy.data.frame  function (data, names = NULL, omit.constants = TRUE, dummy.classes = getOption("dummy.classes"),  all = TRUE, ...)  {  df <- data.frame(row.names = row.names(data))  new.attr <- list()  for (nm in names(data)) {  old.attr <- attr(df, "dummies")  if (nm %in% names || (is.null(names) && (dummy.classes ==  "ALL" || class(data[, nm]) %in% dummy.classes))) {  dummies <- dummy(nm, data, ...)  if (ncol(dummies) == 1 & omit.constants) {  dummies <- matrix(nrow = nrow(data), ncol = 0)  }  if (ncol(dummies) > 0)  new.attr[[nm]] <- (ncol(df) + 1):(ncol(df) +  ncol(dummies))  }  else {  if (!all)  (next)()  dummies <- data[, nm, drop = FALSE]  }  df <- cbind(df, dummies)  }  attr(df, "dummies") <- new.attr  return(df)  }  <bytecode: 0x000001d4a3419438>  <environment: namespace:dummies>  > ss <- data.frame(data4$Current\_year,data4$Experience\_Type,data4$Internship\_Type,data4$Internship\_category,data4$Stipend\_Type)  > ss1<- dummy.data.frame(ss)  > data4 <- cbind(data4,ss1)  > #Dropping irrelevant variables  > data4$Current\_year <- NULL  > data4$Experience\_Type <- NULL  > data4$Internship\_Type <- NULL  > data4$Internship\_category <- NULL  > data4$Stipend\_Type <- NULL | |  | | > # Match/ Distance between Preferred\_location and Internship\_Location  > data4$Pref\_Intern\_LocMatch <- 0  > data4$Pref\_Intern\_LocMatch[as.character(data4$Preferred\_location) == as.character(data4$Internship\_Location) | as.character(data4$Preferred\_location)=="No\_Pref"] <- 1  > # Expected\_Stipend (expected by student) Stipend1(min offered) Stipend2(max offered)  > # Substituting Middle value of Expected\_Stipend  > table(data4$Expected\_Stipend)  10K+ 2-5K 5-10K No Expectations  59137 65206 93014 82653  > data4$Expected\_Stipend <- as.character(data4$Expected\_Stipend)  > data4$Expected\_Stipend[data4$Expected\_Stipend=="10K+"] <- 10000  > data4$Expected\_Stipend[data4$Expected\_Stipend=="2-5K"] <- 3500  > data4$Expected\_Stipend[data4$Expected\_Stipend=="5-10K"] <- 7500  > data4$Expected\_Stipend[data4$Expected\_Stipend=="No Expectations"] <- 0  > data4$Expected\_Stipend <- as.numeric(data4$Expected\_Stipend)  > # creating Feature whether Expected\_Stipend < Stipend1  > data4$St\_EMatch <- ifelse(data4$Expected\_Stipend < data4$Stipend1,1,0)  > data4$Stip\_range <- abs(data4$Stipend2 - data4$Stipend1)  > # Creating feature Minimum\_Duration is less than Internship\_Duration.Months.  > summary(data4$Internship\_Duration.Months.)  Min. 1st Qu. Median Mean 3rd Qu. Max.  0.000 2.000 3.000 3.319 5.000 36.000  > summary(data4$Minimum\_Duration)  Min. 1st Qu. Median Mean 3rd Qu. Max.  1.00 2.00 3.00 3.82 6.00 12.00  > data4$Duration\_Match <- 0  > data4$Duration\_Match <- ifelse(data4$Minimum\_Duration >= data4$Internship\_Duration.Months.,1,0)  > #Creating Feature whether there is a match between Institute\_location and Internship\_Location  > data4$Inst\_Intern\_LocMatch <- 0  > data4$Inst\_Intern\_LocMatch[as.character(data4$Institute\_location) == as.character(data4$Internship\_Location) ] <- 1  > #Creating Feature whether there is a match between hometown and Internship\_Location  > data4$hometown\_Intern\_LocMatch <- 0  > data4$hometown\_Intern\_LocMatch[as.character(data4$hometown) == as.character(data4$Internship\_Location) ] <- 1  > # Creating feature difference between Year\_of\_graduation and year of Internship\_deadline  > #install.packages("lubridate")  > library(lubridate)  > data4$Dif\_Yog\_IntD <- 0  > data4$Dif\_Yog\_IntD <- data4$Year\_of\_graduation - year(data4$Internship\_deadline)  > data4$Neg\_Dif\_Yog\_IntD <- ifelse(data4$Dif\_Yog\_IntD > 0, 1,0)  > # tagging whether a candidate is PG  > data4$Is\_PG <- 0  > data4$Is\_PG <- ifelse(substr(data4$Degree,1,1)=="M" | substr(data4$Degree,1,1)=="P" ,1,0)  > data4$Is\_PG[grep("B.E. & MBA",data4$Degree)]<- 1  > data4$Is\_PG[grep("B.Tech and M.Tech",data4$Degree)]<- 1  > data4$Is\_PG[grep("Integrated",data4$Degree)]<- 1  > # tagging whether a candidate have Prof degree  > data4$Is\_Prof <- 0  > data4$Is\_Prof[grep("Tech",data4$Degree)]<- 1  > data4$Is\_Prof[grep("B.E",data4$Degree)]<- 1  > data4$Is\_Prof[grep("MCA",data4$Degree)]<- 1  > data4$Is\_Prof[grep("MBA",data4$Degree)]<- 1  > data4$Is\_Prof[grep("Management",data4$Degree)]<- 1  > data4$Is\_Prof[grep("Admininstration",data4$Degree)]<- 1  > data4$Is\_Prof[grep("Technology",data4$Degree)]<- 1  > data4$Is\_Prof[grep("Computer",data4$Degree)]<- 1  > ##Creating Feature whether there is a match between Location (Location of work experience) and Internship\_Location  > data4$Workex\_Intern\_LocMatch <- 0  > data4$Workex\_Intern\_LocMatch[as.character(data4$Location) == as.character(data4$Internship\_Location)] <- 1  > # No\_of\_openings  > # group by Internship\_ID the train file to check how many applicants  > # ratio of applicant to opening  > RATO <- data.frame(Internship\_ID = data4$Internship\_ID)  > RATO$Num <- 1  > library(sqldf)  > RATO1 <- sqldf("select Internship\_ID, SUM(Num) as Num\_Applicant From RATO Group BY Internship\_ID")  > data4 <- merge(data4,RATO1, by="Internship\_ID", all.x=TRUE)  > data4$Open\_App\_Ratio <- data4$No\_of\_openings/data4$Num\_Applicant  > ## any relation between Internship\_deadline,Earliest\_Start\_Date  > data4$Internship\_deadline <- as.Date(data4$Internship\_deadline, "%d-%m-%Y")[1:10]  > data4$Diff\_Intdl\_StrD <- as.numeric(as.character(data4$Internship\_deadline - data4$Earliest\_Start\_Date))  > data4$NoCross\_Deadline <- ifelse(data4$Diff\_Intdl\_StrD > 0 ,1,0)  > data4$Internship\_deadline[data4$Internship\_deadline < "2015-01-13"]  Date of length 0  > table(data4$Is\_Shortlisted, data4$Internship\_deadline > "2015-01-13")    TRUE  0 275431  1 24579  > data4$Deadline2015 <- ifelse(data4$Internship\_deadline >"2015-01-13", 1,0)  > #Institute\_Category  > data4$Institute\_Category <- as.character(data4$Institute\_Category)  > data4$Institute\_Category <- ifelse(data4$Institute\_Category=="Y",1,0)  > ## Dropping irrelevant variables  > data5 <- data4[,c(1:2,4:5,7,10,16,18,20,21,26,30,35:139,8,9)]  > names(data5) <- make.names(names(data5))  > Train <- data5[data5$tag=="train",]  > Test <- data5[data5$tag=="test",]  > Train$tag <- NULL  > Test$tag <- NULL  > Test$Is\_Shortlisted <- NULL  > write.csv(Train,"TrainD.csv",row.names=FALSE)  > write.csv(Test,"TestD.csv",row.names=FALSE) | |