## CaseStudy2

## **Alexy Morris**

## 12/4/2021

```
##
## Attaching package: 'dplyr'
## The following objects are masked from 'package:stats':
##
##
       filter, lag
## The following objects are masked from 'package:base':
##
##
       intersect, setdiff, setequal, union
## Rows: 870 Columns: 36
## -- Column specification --------
## Delimiter: ","
## chr (9): Attrition, BusinessTravel, Department, EducationField, Gender, Job...
## dbl (27): ID, Age, DailyRate, DistanceFromHome, Education, EmployeeCount, Em...
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
## # A tibble: 6 x 22
     Attrition BusinessTravel DailyRate DistanceFromHome EnvironmentSatisfaction
##
##
         <dbl>
                       <dbl>
                                 <dbl>
                                                  <dbl>
                                                                          <dbl>
## 1
             1
                           1
                                   117
                                                     13
                                                                              2
## 2
                           1
                                  1308
                                                     14
                                                                              3
             1
             1
                           2
                                                     18
## 3
                                   200
                                                                              3
## 4
             1
                           1
                                                      1
                                   801
                                                                              3
                            2
                                                      2
                                                                              1
## 5
                                   567
## 6
                            2
                                    294
                                                     10
                                                                              4
## # ... with 17 more variables: HourlyRate <dbl>, JobInvolvement <dbl>,
       JobSatisfaction <dbl>, MonthlyIncome <dbl>, MonthlyRate <dbl>,
## #
## #
      NumCompaniesWorked <dbl>, PercentSalaryHike <dbl>, PerformanceRating <dbl>,
## #
      RelationshipSatisfaction <dbl>, StockOptionLevel <dbl>,
## #
      TotalWorkingYears <dbl>, TrainingTimesLastYear <dbl>,
      WorkLifeBalance <dbl>, YearsAtCompany <dbl>, YearsInCurrentRole <dbl>,
## #
## #
      YearsSinceLastPromotion <dbl>, YearsWithCurrManager <dbl>
```

```
## Warning: package 'olsrr' was built under R version 4.1.2

##
## Attaching package: 'olsrr'

## The following object is masked from 'package:datasets':
##
## rivers
```

```
## Backward Elimination Method
  -----
##
##
## Candidate Terms:
##
## 1 . BusinessTravel
## 2 . DailyRate
## 3 . DistanceFromHome
## 4 . EnvironmentSatisfaction
## 5 . HourlyRate
## 6 . JobInvolvement
## 7 . JobSatisfaction
## 8 . MonthlyIncome
## 9 . MonthlyRate
## 10 . NumCompaniesWorked
## 11 . PercentSalaryHike
## 12 . PerformanceRating
## 13 . RelationshipSatisfaction
## 14 . StockOptionLevel
## 15 . TotalWorkingYears
## 16 . TrainingTimesLastYear
## 17 . WorkLifeBalance
## 18 . YearsAtCompany
## 19 . YearsInCurrentRole
## 20 . YearsSinceLastPromotion
## 21 . YearsWithCurrManager
##
## We are eliminating variables based on p value...
##
## - PerformanceRating
##
## Backward Elimination: Step 1
##
   Variable PerformanceRating Removed
##
##
##
                       Model Summary
##
## R
                       0.415
                                  RMSE
                                                    0.338
## R-Squared
                                  Coef. Var
                       0.172
                                                   40.337
## Adj. R-Squared
                       0.153
                                  MSE
                                                    0.115
## Pred R-Squared
                       0.129
                                  MAE
                                                    0.247
  ______
##
   RMSE: Root Mean Square Error
##
   MSE: Mean Square Error
##
   MAE: Mean Absolute Error
##
##
                              ANOVA
##
##
               Sum of
              Squares DF Mean Square
##
                                                         Sig.
  ______
##
## Regression
               20.213
                      20
                                1.011 8.822
                                                       0.0000
```

## Resid		849	0.115				
## Total ##	117.471	869					
##							
##			Parameter	Estimates			
##							
							_
##	model	Beta	Std. Error	Std. Beta	t	Sig	lower
upper ##							
##	(Intercept)	0.192	0.114		1.686	0.092	-0.032
0.416							
##	BusinessTravel	-0.072	0.022	-0.104	-3.295	0.001	-0.114
-0.029 ##	DailyData	0 000	0.000	0 022	0 (00	0 401	0.000
0.000	DailyRate	0.000	0.000	0.022	0.690	0.491	0.000
##	DistanceFromHome	-0.004	0.001	-0.096	-3.045	0.002	-0.007
-0.002							
	ronmentSatisfaction	0.024	0.011	0.072	2.280	0.023	0.003
0.045		0.004	0.004	0.000	4 400		
## 0.000	HourlyRate	-0.001	0.001	-0.038	-1.190	0.234	-0.002
##	JobInvolvement	0.095	0.017	0.182	5.751	0.000	0.063
0.128			2.7.2				
##	JobSatisfaction	0.043	0.010	0.129	4.062	0.000	0.022
0.063							
##	MonthlyIncome	0.000	0.000	0.037	0.727	0.468	0.000
0.000 ##	MonthlyRate	0.000	0.000	0.028	0.877	0.381	0.000
0.000		0.000	0.000	31323	•••	01302	
##	NumCompaniesWorked	-0.019	0.005	-0.131	-3.642	0.000	-0.029
-0.009							
##	PercentSalaryHike	-0.001	0.003	-0.012	-0.376	0.707	-0.007
0.005 ## Relat	ionshipSatisfaction	0.022	0.011	0.067	2.122	0.034	0.002
0.043	101131111934113141111111	0.022	0.011	0.007	2.122	0.034	0.002
##	StockOptionLevel	0.055	0.014	0.127	4.013	0.000	0.028
0.081							
##	TotalWorkingYears	0.011	0.003	0.224	3.627	0.000	0.005
0.017 ## Tr	ainingTimesLastYear	0.020	0.009	0.068	2.163	0.031	0.002
0.038	ainingrimestaserear	0.020	0.003	0.000	2.103	0.031	0.002
##	WorkLifeBalance	0.037	0.016	0.072	2.284	0.023	0.005
0.069							
##	YearsAtCompany	-0.007	0.004	-0.109	-1.556	0.120	-0.015
0.002 ##	YearsInCurrentRole	0.010	0.005	0.097	1.835	0.067	-0.001
0.020	rear 31mear relicitore	0.010	6.003	0.037	1.033	0.00/	-0.00I
	sSinceLastPromotion	-0.016	0.005	-0.142	-3.413	0.001	-0.026
-0.007							
## Y	earsWithCurrManager	0.010	0.005	0.097	1.897	0.058	0.000

```
0.020
##
##
## - PercentSalaryHike
##
## Backward Elimination: Step 2
##
##
   Variable PercentSalaryHike Removed
##
##
                       Model Summary
## -----
## R
                       0.415
                                  RMSE
                                                   0.338
## R-Squared
                       0.172
                                  Coef. Var
                                                  40.317
## Adj. R-Squared
                       0.153
                                  MSE
                                                   0.114
## Pred R-Squared
                       0.131
                                  MAE
                                                   0.247
   RMSE: Root Mean Square Error
##
   MSE: Mean Square Error
   MAE: Mean Absolute Error
##
##
##
                             ANOVA
##
##
               Sum of
##
              Squares
                        DF
                                  Mean Square F
                                                       Sig.
## -----
                           19
                                               9.288
## Regression
               20.196
                                       1.063
                                                       0.0000
               97.275
## Residual
                            850
                                       0.114
## Total
              117.471
                            869
##
##
##
                                      Parameter Estimates
##
                   model
                            Beta
                                   Std. Error
                                                Std. Beta
                                                                     Sig
                                                             t
                                                                             lower
upper
##
              (Intercept)
                            0.174
                                        0.103
                                                            1.689
                                                                    0.092
                                                                            -0.028
0.376
           BusinessTravel
                                        0.022
                                                           -3.291
##
                           -0.072
                                                   -0.104
                                                                    0.001
                                                                            -0.114
-0.029
               DailyRate
                            0.000
                                        0.000
                                                   0.021
                                                            0.682
                                                                    0.496
                                                                             0.000
##
0.000
##
         DistanceFromHome
                           -0.004
                                        0.001
                                                   -0.097
                                                           -3.072
                                                                    0.002
                                                                            -0.007
-0.002
## EnvironmentSatisfaction
                            0.024
                                        0.011
                                                   0.072
                                                            2.281
                                                                    0.023
                                                                             0.003
0.045
##
               HourlyRate
                           -0.001
                                        0.001
                                                   -0.037
                                                           -1.182
                                                                    0.237
                                                                            -0.002
0.000
##
           JobInvolvement
                            0.095
                                        0.017
                                                   0.182
                                                            5.749
                                                                    0.000
                                                                             0.063
```

120						
0.128 ##	ction 0.043	0.010	0.129	4.061	0.000	0.022
0.063	0.043	0.010	0.123	4.001	0.000	0.022
## MonthlyI	ncome 0.000	0.000	0.037	0.731	0.465	0.000
0.000						
## Monthl	yRate 0.000	0.000	0.028	0.877	0.381	0.000
0.000						
## NumCompaniesW	orked -0.019	0.005	-0.131	-3.640	0.000	-0.029
-0.009						
## RelationshipSatisfa	ction 0.023	0.011	0.067	2.142	0.032	0.002
0.043		0.014	0.120	4 020	0.000	0.000
## StockOption 0.081	Level 0.055	0.014	0.128	4.020	0.000	0.028
## TotalWorking	Years 0.011	0.003	0.224	3.633	0.000	0.005
0.017	0.011	0.005	0.224	3.033	0.000	0.003
## TrainingTimesLas	tYear 0.020	0.009	0.068	2.163	0.031	0.002
0.038						
## WorkLifeBa	lance 0.037	0.016	0.072	2.282	0.023	0.005
0.069						
## YearsAtCo	mpany -0.007	0.004	-0.109	-1.553	0.121	-0.015
0.002						
## YearsInCurren	tRole 0.010	0.005	0.096	1.823	0.069	-0.001
0.020	-+: 0.016	0.005	0 141	2 404	0.001	0.026
## YearsSinceLastProm -0.007	otion -0.016	0.005	-0.141	-3.401	0.001	-0.026
-0.007 ##  YearsWithCurrMa	nager 0.010	0.005	0.097	1.905	0.057	0.000
0.020						
##						
##						
## ## D-:1D-+-						
## - DailyRate						
## ## Backward Eliminatio	n. Cton 2					
## backward Ellminacio ##	ii. Step 5					
"" ## Variable DailyRate	Removed					
##						
##	Model Summ	ary				
##						
## R	0.414	RMSE	0.338			
## R-Squared		Coef. Var	40.304			
## Adj. R-Squared		MSE	0.114			
## Pred R-Squared						
##						
## RMSE: Root Mean Sq						
## MSE: Mean Square E						
## MAE: Mean Absolute ##	ELLOI,					
##	ANC	VΔ				
"" ##						
## Sum						
		Mean Square	F S	Sig.		
Squar	51	Squui C		-0.		

_	sion 20.143 al 97.328 117.471		1.119 0.114	9.785	0.0000		
#							
<b>#</b> #							
<b>!</b> #				Estimates			
+#							
<b>#</b> #	model	Beta	Std. Error	Std. Bet	a t	Sig	lower
upper						· ·	
##							
	<b>,-</b>						
## 2. 20 <i>C</i>	(Intercept)	0.189	0.101		1.872	0.062	-0.009
0.386 ##	BusinessTravel	-0.072	0.022	-0.10	5 -3.323	0.001	-0.115
-0.030	Dustinessii avet	0.072	0.022	0.10	3.323	0.001	0.115
##	DistanceFromHome	-0.004	0.001	-0.09	7 -3.066	0.002	-0.007
-0.002							
	onmentSatisfaction	0.024	0.011	0.07	2 2.275	0.023	0.003
ð.045		0.004		0.00		0.040	
## 0.000	HourlyRate	-0.001	0.001	-0.03	6 -1.154	0.249	-0.002
##	JobInvolvement	0.096	0.017	0.18	3 5.795	0.000	0.063
7.128	30311110111cmerre	0.030	0.017	0.10	3.7.55	0.000	0.003
##	JobSatisfaction	0.043	0.010	0.12	9 4.070	0.000	0.022
0.063							
##	MonthlyIncome	0.000	0.000	0.03	7 0.739	0.460	0.000
ð.000 	Marathal Data	0.000	0.000	0.00	7 0.057	0. 201	0.000
## 0.000	MonthlyRate	0.000	0.000	0.02	7 0.857	0.391	0.000
	NumCompaniesWorked	-0.019	0.005	-0.13	0 -3.616	0.000	-0.029
-0.009	•						
## Relatio	onshipSatisfaction	0.023	0.010	0.06	8 2.153	0.032	0.002
0.043							
##	StockOptionLevel	0.055	0.014	0.12	8 4.028	0.000	0.028
0.081 ##	TotalWorkingYears	0.011	0.003	0.22	4 3.631	0.000	0.005
"" 0.017	Totalworkingrears	0.011	0.003	0.22	4 3.631	0.000	0.005
	iningTimesLastYear	0.020	0.009	0.06	8 2.161	0.031	0.002
0.038	-						
##	WorkLifeBalance	0.037	0.016	0.07	1 2.262	0.024	0.005
ð.069			<u>.</u>			0.1.=	
##	YearsAtCompany	-0.007	0.004	-0.11	0 -1.568	0.117	-0.015
0.002 ##	/earsInCurrentRole	0.010	0.005	0.09	8 1.861	0.063	-0.001
777 0.020	. Car Jinear I Circhote	3.010	0.003	0.09	. 1.001	0.005	3.001
	SinceLastPromotion	-0.016	0.005	-0.14	2 -3.439	0.001	-0.026
-0.007							
## Yea	arsWithCurrManager	0.010	0.005	0.09	7 1.899	0.058	0.000
0.020							

```
-----
##
##
## - MonthlyIncome
##
## Backward Elimination: Step 4
##
##
  Variable MonthlyIncome Removed
##
##
                   Model Summary
##
 _____
## R
                           RMSE
                  0.413
                                         0.338
## R-Squared
                   0.171
                           Coef. Var
                                        40.293
## Adj. R-Squared
                  0.154
                           MSE
                                         0.114
## Pred R-Squared
                  0.134
                           MAE
                                         0.247
## -----
##
  RMSE: Root Mean Square Error
##
  MSE: Mean Square Error
  MAE: Mean Absolute Error
##
##
##
                       ANOVA
## -----
##
            Sum of
##
           Squares
                      DF
                           Mean Square
                                              Sig.
## -----
                                             0.0000
## Regression
            20.081
                      17
                               1.181 10.334
## Residual
            97.390
                      852
                               0.114
## Total
           117.471
                      869
##
##
                               Parameter Estimates
## -----
##
               model
                      Beta Std. Error Std. Beta t
                                                       Sig
                                                              lower
upper
## ------
##
           (Intercept)
                      0.194
                                0.100
                                                1.927
                                                       0.054
                                                             -0.004
0.391
##
         BusinessTravel
                     -0.073
                                0.022
                                        -0.106
                                               -3.351
                                                       0.001
                                                             -0.115
-0.030
                                0.001
                                        -0.097
                                                -3.084
                                                       0.002
##
       DistanceFromHome
                     -0.004
                                                             -0.007
-0.002
## EnvironmentSatisfaction
                      0.024
                                0.011
                                         0.072
                                                2.272
                                                      0.023
                                                             0.003
0.045
##
           HourlyRate
                     -0.001
                                0.001
                                         -0.037
                                               -1.180
                                                       0.238
                                                             -0.002
0.000
##
         JobInvolvement
                      0.096
                                0.017
                                         0.184
                                               5.815
                                                      0.000
                                                              0.064
0.128
##
        JobSatisfaction
                      0.042
                                0.010
                                         0.128
                                                4.050
                                                       0.000
                                                              0.022
0.063
                                                0.880
##
           MonthlyRate
                      0.000
                                0.000
                                         0.028
                                                       0.379
                                                              0.000
```

## NumCo -0.009	ompaniesWorked	-0.019	0.005	-0.132	-3.698	0.000	-0.030
	ipSatisfaction	0.023	0.010	0.068	2.172	0.030	0.002
.043	193811318001011	0.023	0.010	0.008	2,1/2	0.030	0.002
	ockOptionLevel	0.055	0.014	0.128	4.024	0.000	0.028
0.081							
## Tota	alWorkingYears	0.012	0.002	0.255	5.520	0.000	0.008
0.017							
## Training	gTimesLastYear	0.020	0.009	0.068	2.147	0.032	0.002
0.037							
	orkLifeBalance	0.037	0.016	0.072	2.273	0.023	0.005
0.069	/A+C	0 007	0.004	0 107	1 540	0.124	0.015
	YearsAtCompany	-0.007	0.004	-0.107	-1.540	0.124	-0.015
0.002 ##    Year:	sInCurrentRole	0.010	0.005	0.098	1.851	0.064	-0.001
7.020	Jinear remendie	0.010	0.003	0.050	1.051	0.004	0.001
	eLastPromotion	-0.017	0.005	-0.144	-3.490	0.001	-0.026
-0.007							
## YearsW:	ithCurrManager	0.010	0.005	0.094	1.858	0.064	-0.001
0.020							
## ## - MonthlyRa ## ## Backward E	ate limination: St	ep 5					
## ## - MonthlyRa ## ## Backward E ## Variable !							
## ## Variable ! ##	limination: St MonthlyRate Re	moved	ary				
## - MonthlyRa ## - MonthlyRa ## Backward E ## ## Variable ! ##	limination: St MonthlyRate Re	moved Model Summa	ary				
## - MonthlyRa ## - MonthlyRa ## Backward E ## ## Variable ! ##	limination: St	moved Model Summa		0.338			
## - MonthlyRa ## - MonthlyRa ## Backward E: ## Variable ! ## ## ##	limination: St	moved  Model Summa 0.413 0.170	RMSE Coef. Var	0.338			
## - MonthlyRa ## - MonthlyRa ## Backward E: ## '# Variable ! ## '# '* ## R-Squared ## Adj. R-Squa	limination: St	moved  Model Summa  0.413 0.170 0.155	RMSE Coef. Var MSE	0.338 40.288 0.114			
## - MonthlyRa ## Backward Ei ## Variable I ## ## Variable I ## ## ## R ## R-Squared ## Adj. R-Squa	limination: St MonthlyRate Re	moved  Model Summa 0.413 0.170 0.155 0.135	RMSE Coef. Var MSE MAE	0.338 40.288 0.114 0.247			
## - MonthlyR: ## - MonthlyR: ## Backward E: ## Variable ! ## Variable ! ## R ## R-Squared ## Adj. R-Squa	limination: St	moved  Model Summa 0.413 0.170 0.155 0.135	RMSE Coef. Var MSE	0.338 40.288 0.114 0.247			
## - MonthlyRa ## - MonthlyRa ## Backward E: ## ## Variable ! ## ## ## R-Squared ## Adj. R-Squared ## Pred R-Squared ## Pred R-Squared	limination: St MonthlyRate Re  ared ared ared t Mean Square	moved  Model Summa 0.413 0.170 0.155 0.135	RMSE Coef. Var MSE MAE	0.338 40.288 0.114 0.247			
## - MonthlyRa ## - MonthlyRa ## Backward E ## ## Variable ! ## ## R ## R-Squared ## Adj. R-Squared ## Pred R-Squared ## Pred R-Squared ## RMSE: Room	limination: St MonthlyRate Re  ared ared t Mean Square Square Error	moved  Model Summa 0.413 0.170 0.155 0.135	RMSE Coef. Var MSE MAE	0.338 40.288 0.114 0.247			
## - MonthlyRa ## - MonthlyRa ## Backward E: ## ## Variable A ## R-Squared ## R-Squared ## Pred R-Squa ## Pred R-Squa ## Pred R-Squa ## RMSE: Roo ## MSE: Mean ## MAE: Mean	limination: St MonthlyRate Re  ared ared ared t Mean Square	moved  Model Summa 0.413 0.170 0.155 0.135	RMSE Coef. Var MSE MAE	0.338 40.288 0.114 0.247			
## - MonthlyRa ## - MonthlyRa ## Backward E ## ## Variable I ## ## R-Squared ## Adj. R-Squared ## Pred R-Squared ## Pred R-Squared ## RMSE: Room ## MAE: Mean ##	limination: St MonthlyRate Re  ared ared t Mean Square Square Error	moved  Model Summa  0.413  0.170  0.155  0.135	RMSE Coef. Var MSE MAE	0.338 40.288 0.114 0.247			
## - MonthlyRa ## - MonthlyRa ## Backward E ## ## Variable I ## ## R-Squared ## Adj. R-Squa ## Pred R-Squa ## ## RMSE: Roo ## MSE: Mean ## MAE: Mean ##	limination: St MonthlyRate Re  ared ared t Mean Square Square Error Absolute Erro	moved  Model Summa 0.413 0.170 0.155 0.135 Error  ANO	RMSE Coef. Var MSE MAE	0.338 40.288 0.114 0.247			
## - MonthlyRa ## - MonthlyRa ## Backward E ## ## Variable I ## ## R-Squared ## Adj. R-Squa ## Pred R-Squa ## ## RMSE: Room ## MAE: Mean ##	limination: St MonthlyRate Re  ared ared t Mean Square Square Error Absolute Erro	moved  Model Summa 0.413 0.170 0.155 0.135 Error  ANO	RMSE Coef. Var MSE MAE	0.338 40.288 0.114 0.247			
## - MonthlyRa ## - MonthlyRa ## Backward E: ## ## Variable I ## ## R-Squared ## Adj. R-Squa ## Pred R-Squa ## Pred R-Squa ## AMSE: Roo ## MMSE: Mean ## MAE: Mean ##	limination: St MonthlyRate Re  ared ared t Mean Square Square Error Absolute Erro	Model Summa 	RMSE Coef. Var MSE MAE	0.338 40.288 0.114 0.247			
## - MonthlyRa ## - MonthlyRa ## Backward E: ## ## Variable ! ## ## R-Squared ## Adj. R-Squa ## Pred R-Squa ## ## RMSE: Room ## MAE: Mean ## ## ## ## ##	limination: St  MonthlyRate Re  ared  ared  t Mean Square  Square Error  Absolute Erro  Sum of  Squares	moved  Model Summa 0.413 0.170 0.155 0.135 Error  ANOV	RMSE Coef. Var MSE MAE	0.338 40.288 0.114 0.247	 Sig.		
## - MonthlyRa ## - MonthlyRa ## Backward E ## ## Variable I ## ## R-Squared ## Adj. R-Squa ## Pred R-Squa ## Pred R-Squa ## MSE: Mean ## MAE: Mean ## ## ## ## ## ## ## ## ## ## ## ## ##	limination: St MonthlyRate Re  ared ared t Mean Square Square Error Absolute Erro  Sum of Squares	Model Summa 0.413 0.170 0.155 0.135 Error  ANOV	RMSE Coef. Var MSE MAE  VA  Mean Square	0.338 40.288 0.114 0.247	Sig.		
## - MonthlyRa ## - MonthlyRa ## Backward E ## ## Variable I ## ## R-Squared ## Adj. R-Squa ## Pred R-Squa ## Pred R-Squa ## AMSE: Roo ## MSE: Mean ## MAE: Mean ## ## ## ## ## ## ## ## ## ## ## ## ##	limination: St MonthlyRate Re  ared ared t Mean Square Square Error Absolute Erro  Sum of Squares	Model Summa 	RMSE Coef. Var MSE MAE  VA  Mean Square	0.338 40.288 0.114 0.247	Sig.		

##			Estimates			
## 						
## model	Beta	Std. Error	Std. Beta	t	Sig	lower
upper						
##						
 ## (Intercept)	0.214	0.098		2.185	0.029	0.022
0.406	0.214	0.038		2.10)	0.029	0.022
## BusinessTravel	-0.073	0.022	-0.106	-3.381	0.001	-0.116
-0.031						
## DistanceFromHome	-0.004	0.001	-0.097	-3.090	0.002	-0.007
-0.002						
## EnvironmentSatisfaction	0.024	0.011	0.073	2.328	0.020	0.004
0.045	0.001	2 224	0.005	4 400	0.00=	0.000
## HourlyRate	-0.001	0.001	-0.038	-1.188	0.235	-0.002
0.000 ##    JobInvolvement	0.096	0.016	0.183	5.802	0.000	0.063
## Jobinvolvement 0.128	סכט. ט	0.010	6.103	3.002	0.000	6.003
## JobSatisfaction	0.043	0.010	0.129	4.085	0.000	0.022
0.063						
## NumCompaniesWorked	-0.019	0.005	-0.133	-3.727	0.000	-0.030
-0.009						
## RelationshipSatisfaction	0.023	0.010	0.068	2.157	0.031	0.002
0.043	0.054	0.014	0.126	2 000	0.000	0.000
## StockOptionLevel 0.081	0.054	0.014	0.126	3.990	0.000	0.028
## TotalWorkingYears	0.013	0.002	0.259	5.634	0.000	0.008
0.017	0.013	0.002	0.233	3.034	0.000	0.000
## TrainingTimesLastYear	0.020	0.009	0.068	2.148	0.032	0.002
0.037						
## WorkLifeBalance	0.037	0.016	0.072	2.272	0.023	0.005
0.069						
## YearsAtCompany	-0.007	0.004	-0.113	-1.619	0.106	-0.015
0.001 ##    YearsInCurrentRole	0.010	0.005	0 101	1 017	0.056	0 000
## YearsInCurrentRole 0.021	0.010	0.005	0.101	1.917	0.056	0.000
## YearsSinceLastPromotion	-0.017	0.005	-0.144	-3.479	0.001	-0.026
-0.007	0.027	0.005	0.2	3.173	0.001	0.020
## YearsWithCurrManager	0.010	0.005	0.093	1.837	0.067	-0.001
0.020						
##						
##						
## HounlyPata						
## - HourlyRate ##						
++ ++ Backward Elimination: Step	. 6					
rm backwai u Ettilitliactoli. Step	, 0					

##

## ## ## Variable HourlyRate Removed

Model Summary

##							
## R		0.411	RMSE	0.338			
## R-Squ	ared	0.169	Coef. Var	40.298			
_	R-Squared			0.114			
	R-Squared						
	: Root Mean Square						
	Mean Square Error						
## MAE: ##	Mean Absolute Err	or					
##		ANO\	/Δ				
##	Sum of						
##	Squares	DF	Mean Square	F	Sig.		
## Regre	ssion 19.831	15	1.322	11.563 0	.0000		
## Resid	ual 97.640	854	0.114				
		869					
##							
##							
##				r Estimates			
##	mada	1 Po+o	Std. Error	C+d Po+o	+	Cia	lower
## upper	illoue	т веса	Sta. Error	Stu. Beta	· ·	21g	Tower
##		) 0.170	0.091		1.877	0.061	-0.008
0.348	, '						
##	BusinessTrave	1 -0.074	0.022	-0.108	-3.428	0.001	-0.117
-0.032							
##	DistanceFromHom	e -0.005	0.001	-0.100	-3.166	0.002	-0.007
-0.002							
	ronmentSatisfactio	n 0.025	0.011	0.074	2.368	0.018	0.004
0.046	7 1 7 7			0.45		0.000	0.055
##	JobInvolvemen	t 0.095	0.016	0.181	5.738	0.000	0.062
0.127 ##	JohCo+; c-f+	n 0.044	0.010	0 122	4 200	0.000	0 022
## 0.064	JobSatisfactio	n 0.044	0.010	0.133	4.200	0.000	0.023
##	NumCompaniesWorke	d -0.019	0.005	-0.133	-3.726	0.000	-0.030
-0.009	amcompaniesworke	. U.UI9	0.003	0.133	3.720	3.000	0.050
	ionshipSatisfactio	n 0.022	0.010	0.067	2.143	0.032	0.002
0.043	,						-
##	StockOptionLeve	0.053	0.014	0.124	3.925	0.000	0.027
0.080	·						
##	TotalWorkingYear	s 0.013	0.002	0.257	5.606	0.000	0.008
0.017							
## Tr	ainingTimesLastYea	r 0.020	0.009	0.068	2.141	0.033	0.002
0.037							
##	WorkLifeBalanc	e 0.038	0.016	0.073	2.306	0.021	0.006
0.070						_	_
##	YearsAtCompan	y -0.007	0.004	-0.112	-1.615	0.107	-0.015

	rsInCurrentRole	0.010	0.005	0.101	1.925	0.055	0.000
.021	ceLastPromotion	-0.017	0.005	-0.144	-3.487	0.001	0 026
# Year'ssin 0.007	Celastriomotion	-0.017	0.005	-0.144	-3.40/	0.001	-0.026
	WithCurrManager	0.010	0.005	0.094	1.846	0.065	-0.001
.020							
 ‡							
<del>,</del> ‡							
‡ - YearsAt	Company						
‡							
	Elimination: Step	o 7					
‡ t Vaniahlo	VoansA+Company I	Romovod					
+ variable ‡	YearsAtCompany I	Kellioveu					
<i>,</i> ‡	Мо	odel Summa	ry				
‡					-		
‡ R		.408		0.338			
# R-Squared			Coef. Var				
‡ Adj. R-Sq ‡ Pred R-Sa		.153 .135		0.115 0.247			
-					_		
# MSE: Mea # MAE: Mea	n Square Error n Absolute Error						
# MSE: Mea # MAE: Mea #	n Square Error n Absolute Error	ANOV					
# MSE: Mea # MAE: Mea # # #	n Square Error n Absolute Error		'A 				
# MSE: Mea # MAE: Mea # # # #	n Square Error n Absolute Error				 Sig.		
# MSE: Mea # MAE: Mea # # # # #	n Square Error n Absolute Error Sum of Squares	ANOV  DF	Mean Square	F 			
# MSE: Mea # MAE: Mea # # # # Regressio	n Square Error n Absolute Error  Sum of Squares n 19.533	ANOV  DF 	Mean Square 1.395	F 			
# MSE: Mea # MAE: Mea # # # # # # Regressio # Residual	Sum of Squares 19.533 97.938	ANOV DF 14 855	Mean Square	F 			
# MSE: Mea # MAE: Mea # # # # # Regressio # Residual # Total	Sum of Squares 19.533 97.938	ANOV DF 14 855 869	Mean Square 1.395	F 12.18			
# MSE: Mea # MAE: Mea # # # # Regressio # Residual # Total	Sum of Squares  19.533 97.938 117.471	ANOV DF 14 855 869	Mean Square  1.395 0.115	F 12.18			
# MSE: Mea # MAE: Mea # # # Regressio # Residual # Total #	Sum of Squares  19.533 97.938 117.471	ANOV DF 14 855 869	Mean Square 1.395 0.115	F 12.18  Estimates			
# MSE: Mea # MAE: Mea # # # # Regressio # Residual # Total #	Sum of Squares  19.533 97.938 117.471	ANOV DF 14 855 869	Mean Square 1.395 0.115	F 12.18  Estimates			
# MSE: Mea # MAE: Mea # # # # # Regressio # Residual # Total # # # #	Sum of Squares  19.533 97.938 117.471	ANOV DF 14 855 869	Mean Square 1.395 0.115 Parameter	F 12.18  Estimates	 0.0000 	Sig	lower
# MSE: Mea # MAE: Mea # # # Regressio # Residual # Total # # # #	Sum of Squares  19.533 97.938 117.471	ANOV DF 14 855 869	Mean Square 1.395 0.115	F 12.18  Estimates	 0.0000 	Sig	lower
# MSE: Mea # MAE: Mea # # # Regressio # Residual # Total # # # #	Sum of Squares  19.533 97.938 117.471	ANOV  DF  14  855  869  Beta	Mean Square  1.395 0.115  Parameter  Std. Error	F 12.18  Estimates Std. Beta	 0.0000 	_	lower
# MSE: Mea # MAE: Mea # # # # Regressio # Residual # Total # # #	Sum of Squares  19.533 97.938 117.471  model	ANOV DF 14 855 869	Mean Square  1.395 0.115  Parameter  Std. Error	F 12.18  Estimates Std. Beta	 0.0000  t		
# MSE: Mea # MAE: Mea # # # Regressio # Residual # Total # # pper # #	Sum of Squares n 19.533 97.938 117.471	ANOV DF 14 855 869	Mean Square  1.395 0.115  Parameter  Std. Error	F 12.18  Estimates Std. Beta	 0.0000 		lower
# MSE: Mea # MAE: Mea # # # # # Regressio # Residual # Total # # pper # # oper #	Sum of Squares  19.533 97.938 117.471  model  (Intercept)	ANOV  DF  14 855 869  Beta  0.168	Mean Square  1.395 0.115  Parameter  Std. Error  0.091	F 12.18 Estimates Std. Beta	t 1.850	0.065	-0.010
# MSE: Mea # MAE: Mea # # # # # Regressio # Residual # Total # # # # pper # # .346 #	Sum of Squares  19.533 97.938 117.471  model	ANOV  DF  14 855 869  Beta  0.168	Mean Square  1.395 0.115  Parameter  Std. Error  0.091	F 12.18 Estimates Std. Beta	t 1.850	0.065	-0.010
# MSE: Mea # MAE: Mea # # # # Regressio # Residual # Total # # # # pper # # .346 # 0.031	Sum of Squares  19.533 97.938 117.471  model  (Intercept)	ANOV  DF  14 855 869  Beta  0.168  -0.074	Mean Square  1.395 0.115  Parameter  Std. Error  0.091 0.022	F 12.18 Estimates Std. Beta	t 1.850 -3.404	0.065 0.001	-0.010 -0.116
# MAE: Mea # # # # Regressio # Residual # Total # # # # pper # # .346 # 0.031 # D	Sum of Squares  19.533 97.938 117.471  model  (Intercept)  BusinessTravel	ANOV  DF  14 855 869  Beta  0.168  -0.074  -0.004	Mean Square  1.395 0.115  Parameter  Std. Error  0.091 0.022 0.001	F	t 1.850 -3.404	0.065 0.001 0.002	-0.010 -0.116 -0.007

.046							
	bInvolvement	0.097	0.016	0.185	5.882	0.000	0.064
.129							
<b>:</b> # Job.	Satisfaction	0.042	0.010	0.129	4.083	0.000	0.022
0.063							
## NumCom	paniesWorked	-0.017	0.005	-0.118	-3.415	0.001	-0.027
0.007							
## Relationship	Satisfaction	0.022	0.010	0.065	2.068	0.039	0.001
0.042							
	kOptionLevel	0.054	0.014	0.125	3.963	0.000	0.027
0.080		0.011	0.003	0 222	F 407	0.000	0.007
	WorkingYears	0.011	0.002	0.222	5.487	0.000	0.007
).015 ##	imesLastYear	0.018	0.009	0.064	2.022	0.044	0.001
).036	IIIC3La3C1Ca1	0.010	0.003	0.004	2.022	0.044	0.001
	kLifeBalance	0.038	0.016	0.074	2.342	0.019	0.006
0.070			3.023	3.0.1	<b>_</b>	<del></del>	
	nCurrentRole	0.007	0.005	0.067	1.393	0.164	-0.003
0.016							
## YearsSinceL	astPromotion	-0.019	0.005	-0.164	-4.147	0.000	-0.028
0.010							
## YearsWit	hCurrManager	0.006	0.005	0.060	1.293	0.196	-0.003
0.016 ## ## ## ## - YearsWithC	urrManager						
## !# !# !# - YearsWithC !# !# Backward Eli	urrManager mination: Ste	р 8					
## !# !# !# - YearsWithC !# !# Backward Eli	urrManager mination: Ste	р 8					
## ## ## - YearsWithC ## ## Backward Eli ## Variable Ye ##	urrManager mination: Ste arsWithCurrMa M	р 8	oved				
## ##  ##  ## - YearsWithC  ##  ## Backward Eli  ##  ## Variable Ye  ##  ##	urrManager mination: Ste arsWithCurrMa M	p 8 nager Remo odel Summa	oved ary		-		
## ## ## - YearsWithC ## Backward Eli ## Variable Ye ## ## Variable Ye	urrManager mination: Ste arsWithCurrMa M	p 8 nager Remo odel Summa 	oved ary RMSE	0.339	-		
## ## ## - YearsWithC ## Backward Eli ## Variable Ye ## ## Variable Ye ##	urrManager mination: Ste arsWithCurrMa M 	p 8 nager Remo odel Summa  .406 .165	oved ary RMSE Coef. Var	0.339 40.352	-		
## ##  ## - YearsWithC  ##  ## Backward Eli  ##  ## Variable Ye  ##  ##  ##  ##  ##  ##  ##  ##  ##	urrManager mination: Ste arsWithCurrMa M  0 0	p 8 nager Remo odel Summa406 .165	oved ary RMSE Coef. Var	0.339 40.352 0.115	-		
## ## ## - YearsWithC ## Backward Eli ## Variable Ye ## ## ## R ## R-Squared ## Adj. R-Squar	urrManager mination: Ste arsWithCurrMa  M 0 0 0 ed 0 ed 0	p 8 nager Remo odel Summa406 .165 .152 .135	oved ary RMSE Coef. Var MSE MAE	0.339 40.352 0.115 0.247	-		
## ## ## ## - YearsWithC ## ## Backward Eli ## ## Variable Ye ## ## ## R ## R-Squared ## Adj. R-Squar ## Pred R-Squar	urrManager mination: Ste arsWithCurrMa  M 0 0 ed 0 ed 0	p 8 nager Remo odel Summa406 .165 .152 .135	oved ary RMSE Coef. Var MSE MAE	0.339 40.352 0.115 0.247	-		
## ## ## - YearsWithC ## Backward Eli ## Variable Ye ## Wariable Ye ## R-Squared ## R-Squared ## Adj. R-Squar ## Pred R-Squar	urrManager mination: Ste arsWithCurrMa  M 0 0 ed 0 ed 0 ed 0	p 8 nager Remo odel Summa406 .165 .152 .135	oved ary RMSE Coef. Var MSE MAE	0.339 40.352 0.115 0.247	-		
## ## ## - YearsWithC ## Backward Eli ## Variable Ye ## R ## R-Squared ## R-Squared ## Adj. R-Squar ## Pred R-Squar ## Pred R-Squar	urrManager mination: Ste arsWithCurrMa  M 0 0 ed 0 ed 0 ed 0	p 8 nager Remo odel Summa406 .165 .152 .135	oved ary RMSE Coef. Var MSE MAE	0.339 40.352 0.115 0.247	-		
## ## ## - YearsWithC ## Backward Eli ## Variable Ye ## R ## R-Squared ## R-Squared ## Adj. R-Squar ## Pred R-Squar ## Pred R-Squar	urrManager mination: Ste arsWithCurrMa  M 0 ed 0 ed 0 ed 0 Mean Square E quare Error	p 8 nager Remo odel Summa406 .165 .152 .135	oved ary RMSE Coef. Var MSE MAE	0.339 40.352 0.115 0.247	-		
## ## ## - YearsWithC ## ## - YearsWithC ## ## Backward Eli ## ## Variable Ye ## ## R-Squared ## Adj. R-Squar ## Pred R-Squar ## Pred R-Squar ## Pred R-Squar ## RMSE: Root	urrManager mination: Ste arsWithCurrMa  M 0 ed 0 ed 0 ed 0 Mean Square E quare Error	p 8 nager Remo odel Summa406 .165 .152 .135	oved  Ary  RMSE  Coef. Var  MSE  MAE	0.339 40.352 0.115 0.247	-		
## ## ## ## - YearsWithC ## ## Backward Eli ## ## Variable Ye ## ## ## R-Squared ## Adj. R-Squar ## Pred R-Squar ## Pred R-Squar ## RMSE: Root ## MAE: Mean A	urrManager mination: Ste arsWithCurrMa  M  ed 0 ed 0 ed 0 Mean Square E quare Error bsolute Error	p 8 nager Remo odel Summa406 .165 .152 .135	oved  ary  RMSE  Coef. Var  MSE  MAE	0.339 40.352 0.115 0.247	-		
## ## ## - YearsWithC ## ## Backward Eli ## ## Variable Ye ## ## R-Squared ## Adj. R-Squar ## Pred R-Squar ## Pred R-Squar ## MSE: Mean S ## MAE: Mean A	urrManager mination: Ste arsWithCurrMa  M  ed 0 ed 0 ed 0 Mean Square E quare Error bsolute Error	p 8 nager Remo odel Summa406 .165 .152 .135	oved  ary  RMSE  Coef. Var  MSE  MAE	0.339 40.352 0.115 0.247	-		
## ## ## ## - YearsWithC ## ## Backward Eli ## ## Variable Ye ## ## R-Squared ## Adj. R-Squar ## Pred R-Squar ## Pred R-Squar ## RMSE: Root   ## MSE: Mean A ## ## ## ## ## ## ## ## ## ## ## ## ##	urrManager mination: Ste arsWithCurrMa  M  ed 0 ed 0 ed 0 Mean Square E quare Error bsolute Error  Sum of Squares	p 8 nager Remo odel Summa406 .165 .152 .135 rror  ANOV	oved  Ary  RMSE Coef. Var  MSE MAE  MAE	0.339 40.352 0.115 0.247	- 		
## ## ## ## - YearsWithC ## ## Backward Eli ## ## Variable Ye ## ## R-Squared ## Adj. R-Squar ## Pred R-Squar ## Pred R-Squar ## Pred R-Squar ## MSE: Mean S ## MAE: Mean A ## ## ##	urrManager mination: Ste arsWithCurrMa  M 0 ed 0 ed 0 ed 0 ed 0 solute Error bsolute Error Sum of Squares	p 8 nager Remo odel Summa406 .165 .152 .135 rror  ANOV	oved  Ary  RMSE Coef. Var  MSE MAE  MAE	0.339 40.352 0.115 0.247	- Sig.		
## ## ## - YearsWithC ## Backward Eli ## ## Variable Ye ## ## R-Squared ## Adj. R-Squar ## Pred R-Squar ## Pred R-Squar ## RMSE: Root ## MAE: Mean A ## ## ## ## ## ## ## ## ## ## ## ## ##	urrManager mination: Ste arsWithCurrMa  M 0 ed 0 ed 0 ed 0 Hean Square E quare Error bsolute Error Sum of Squares	p 8 nager Remo odel Summa406 .165 .152 .135 rror  ANOV	nry  RMSE Coef. Var MSE MAE  Mean Square	0.339 40.352 0.115 0.247	- Sig.		
## ## ## ## - YearsWithC ## ## Backward Eli ## ## Variable Ye ## ## R-Squared ## Adj. R-Squar ## Pred R-Squar ## Pred R-Squar ## Pred R-Squar ## MSE: Mean S ## MAE: Mean A ## ## ##	urrManager mination: Ste arsWithCurrMa  M  0 0 ed 0 ed 0 ed 0 ed 0 mean Square E quare Error bsolute Error  Sum of Squares  19.341 98.130	p 8 nager Remo odel Summa406 .165 .152 .135 rror  ANOV DF 13 856	oved  Ary  RMSE Coef. Var  MSE MAE  MAE  Mean Square	0.339 40.352 0.115 0.247	- Sig.		

## ##				Estimates			
 ##	- model	Beta	Std. Error	Std. Beta	t	Sig	lower
upper						Ü	
##							
	-						
##	(Intercept)	0.177	0.090		1.961	0.050	0.000
0.355							
##	BusinessTravel	-0.074	0.022	-0.108	-3.413	0.001	-0.117
-0.031 ##	DistanceFromHome	-0.004	0.001	-0.099	-3.135	0.002	-0.007
## -0.002	DISCANCERTONINONIE	-0.004	0.001	-0.099	-3.133	0.002	-0.007
	rironmentSatisfaction	0.025	0.011	0.073	2.335	0.020	0.004
0.045		3.023	0.011	0.075	,,,,	3.020	0.004
##	JobInvolvement	0.097	0.016	0.186	5.903	0.000	0.065
0.129							
##	JobSatisfaction	0.043	0.010	0.129	4.105	0.000	0.022
0.063							
##	NumCompaniesWorked	-0.018	0.005	-0.123	-3.607	0.000	-0.028
-0.008							
	tionshipSatisfaction	0.021	0.010	0.064	2.046	0.041	0.001
0.042	C+l-0-+	0.053	0.014	0.425	2 044	0.000	0 027
## 0.080	StockOptionLevel	0.053	0.014	0.125	3.941	0.000	0.027
##	TotalWorkingYears	0.011	0.002	0.232	5.823	0.000	0.008
0.015	rocalmor kingrears	0.011	0.002	0.232	3.023	0.000	0.000
	rainingTimesLastYear	0.019	0.009	0.065	2.059	0.040	0.001
0.037	<b>C</b>						
##	WorkLifeBalance	0.037	0.016	0.072	2.285	0.023	0.005
0.069							
##	YearsInCurrentRole	0.010	0.004	0.100	2.462	0.014	0.002
0.018							
	rsSinceLastPromotion	-0.018	0.005	-0.156	-3.998	0.000	-0.027
-0.009							
## 							
 ##	· <del>-</del>						
##							
##							
	ore variables satisfy	the condit	ion of p value	e = 0.05			
##	,		·				
##							
## Vari	ables Removed:						
##							
## - Pe	erformanceRating						
## - Pe	ercentSalaryHike						

## - DailyRate
## - MonthlyIncome
## - MonthlyRate

```
## - HourlyRate
## - YearsAtCompany
## - YearsWithCurrManager
##
##
## Final Model Output
  -----
##
##
                    Model Summary
## -----
## R
                    0.406
                             RMSE
                                            0.339
## R-Squared
                             Coef. Var
                    0.165
                                            40.352
## Adj. R-Squared
                             MSE
                    0.152
                                            0.115
## Pred R-Squared
                    0.135
                             MAE
                                            0.247
## -----
##
  RMSE: Root Mean Square Error
##
  MSE: Mean Square Error
  MAE: Mean Absolute Error
##
##
##
                         ANOVA
##
##
             Sum of
##
                        DF
                             Mean Square F
            Squares
                                                  Sig.
## -----
             19.341
                                  1.488
                                        12.978
                                                0.0000
## Regression
                        13
## Residual
            98.130
                        856
                                  0.115
## Total
            117.471
                        869
  ______
##
##
                                 Parameter Estimates
##
                model
                         Beta
                               Std. Error
                                         Std. Beta
                                                    t
                                                           Sig
                                                                   lower
upper
## ------
##
            (Intercept)
                        0.177
                                   0.090
                                                    1.961
                                                           0.050
                                                                  0.000
0.355
##
         BusinessTravel
                                   0.022
                       -0.074
                                            -0.108
                                                   -3.413
                                                           0.001
                                                                  -0.117
-0.031
##
        DistanceFromHome
                                   0.001
                                                                  -0.007
                       -0.004
                                            -0.099
                                                   -3.135
                                                           0.002
-0.002
## EnvironmentSatisfaction
                        0.025
                                   0.011
                                            0.073
                                                    2.335
                                                           0.020
                                                                   0.004
0.045
##
         JobInvolvement
                        0.097
                                   0.016
                                            0.186
                                                    5.903
                                                           0.000
                                                                   0.065
0.129
##
         JobSatisfaction
                        0.043
                                   0.010
                                            0.129
                                                    4.105
                                                           0.000
                                                                  0.022
0.063
##
                                                           0.000
      NumCompaniesWorked
                       -0.018
                                   0.005
                                            -0.123
                                                   -3.607
                                                                  -0.028
-0.008
## RelationshipSatisfaction
                        0.021
                                   0.010
                                            0.064
                                                    2.046
                                                           0.041
                                                                   0.001
0.042
```

##	StockOptionLevel	0.053	0.014	0.125	3.941	0.000	0.027
0.080 ##	TotalWorkingYears	0.011	0.002	0.232	5.823	0.000	0.008
0.015 ## T	   TrainingTimesLastYear	0.019	0.009	0.065	2.059	0.040	0.001
0.037 ##	WorkLifeBalance	0.037	0.016	0.072	2.285	0.023	0.005
0.069 ##	YearsInCurrentRole	0.010	0.004	0.100	2,462	0.014	0.002
0.018 ## Yea	arsSinceLastPromotion	-0.018	0.005	-0.156	-3.998	0.000	-0.027
-0.009				-0.130	-3.330	0.000	-0.027
##	· ·-						

## ## ## Elimination Summary ## ## Variable Adj. Removed R-Square R-Square C(p) AIC RMSE ## Step ## ## PerformanceRating 0.1721 0.1526 20.0008 606.6790 0.3385 1 2 PercentSalaryHike 0.1719 18.1418 ## 0.1534 604.8237 0.3383 ## 3 DailyRate 0.1715 0.1539 16.6052 603.2989 0.3382 4 MonthlyIncome 0.1709 0.1544 15.1498 0.3381 ## 601.8570 ## 5 MonthlyRate 0.1702 0.1546 13.9214 600.6472 0.3380 ## 6 HourlyRate 0.1688 0.1542 13.3272 600.0850 0.3381 7 ## YearsAtCompany 0.1663 0.1526 13.9284 600.7392 0.3384 ## YearsWithCurrManager 0.1646 0.152 13.5993 600.4399 0.3386

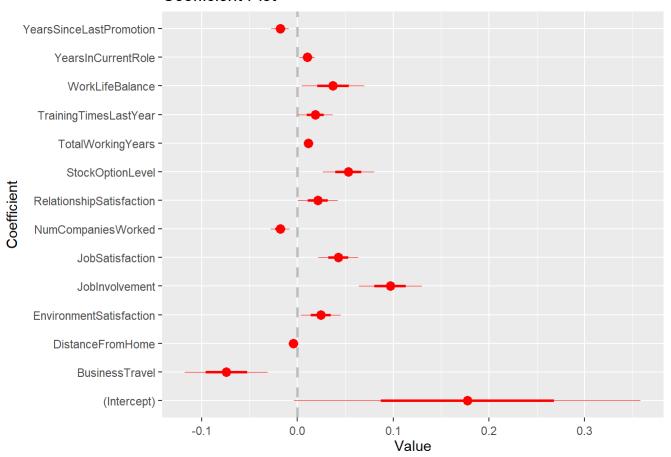
## Warning: package 'coefplot' was built under R version 4.1.2

```
## Warning: It is deprecated to specify `guide = FALSE` to remove a guide. Please
## use `guide = "none"` instead.

## Warning: It is deprecated to specify `guide = FALSE` to remove a guide. Please
## use `guide = "none"` instead.

## Warning: It is deprecated to specify `guide = FALSE` to remove a guide. Please
## use `guide = "none"` instead.
```

## Coefficient Plot



```
## Registered S3 method overwritten by 'GGally':
## method from
## +.gg ggplot2
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```



## i Use `spec()` to retrieve the full column specification for this data.

## i Specify the column types or set `show\_col\_types = FALSE` to quiet this message.

```
## # A tibble: 6 x 2
## ID AttritionPrediction
## <dbl> <fct>
## 1 1171 No
## 2 1172 No
## 3 1173 Yes
## 4 1174 No
## 5 1175 No
## 6 1176 No
```

```
## Backward Elimination Method
  -----
##
##
## Candidate Terms:
##
## 1 . Attrition
## 2 . BusinessTravel
## 3 . DailyRate
## 4 . DistanceFromHome
## 5 . EnvironmentSatisfaction
## 6 . HourlyRate
## 7 . JobInvolvement
## 8 . JobSatisfaction
## 9 . MonthlyRate
## 10 . NumCompaniesWorked
## 11 . PercentSalaryHike
## 12 . PerformanceRating
## 13 . RelationshipSatisfaction
## 14 . StockOptionLevel
## 15 . TotalWorkingYears
## 16 . TrainingTimesLastYear
## 17 . WorkLifeBalance
## 18 . YearsAtCompany
## 19 . YearsInCurrentRole
## 20 . YearsSinceLastPromotion
## 21 . YearsWithCurrManager
##
## We are eliminating variables based on p value...
##
## - PercentSalaryHike
##
## Backward Elimination: Step 1
##
   Variable PercentSalaryHike Removed
##
##
##
                          Model Summary
##
## R
                       0.784
                                  RMSE
                                                     2886.092
## R-Squared
                                  Coef. Var
                       0.615
                                                       45.164
## Adj. R-Squared
                       0.606
                                  MSE
                                                  8329529.054
## Pred R-Squared
                       0.592
                                  MAE
                                                     2127.073
## -----
##
   RMSE: Root Mean Square Error
##
   MSE: Mean Square Error
##
   MAE: Mean Absolute Error
##
##
                                  ANOVA
##
##
                      Sum of
                     Squares DF Mean Square
##
                                                                  Sig.
##
  ______
              11297854220.544 20 564892711.027 67.818
## Regression
                                                                0.0000
```

##	Residual 7071770166. Total 18369624387.	195	869	29.054			
##							
##				er Estimates			
## r	model upper	Beta	Std. Error	Std. Beta	t	Sig	lowe
 ##	(Intercept)	2020 120	1237.134		1.641	0.101	-398.06
2	(Intercept) 4458.338	2030.130	1237.134		1.041	0.101	-390.00
##	Attrition	212.282	292.546	0.017	0.726	0.468	-361.91
7	786.481						
## 0	BusinessTravel 205.711	-160.750	186.707	-0.019	-0.861	0.389	-527.21
##	DailyRate	0.075	0.246	0.007	0.303	0.762	-0.40
9	0.558						
##	DistanceFromHome	-6.730	12.239	-0.012	-0.550	0.583	-30.75
2 ##	17.293	17 260	00 172	0.004	0 100	0 040	104 25
4	EnvironmentSatisfaction 159.718	-17.208	90.172	-0.004	-0.192	0.848	-194.25
##	HourlyRate	-4.752	4.933	-0.021	-0.963	0.336	-14.43
4	4.931						
##	JobInvolvement	72.329	143.818	0.011	0.503	0.615	-209.95
2 ##	354.609 JobSatisfaction	-93 287	90.194	-0.023	-1.034	0.301	-270.31
6	83.741	JJ.207	30.134	0.023	1.054	0.301	270.31
##	MonthlyRate	0.012	0.014	0.018	0.851	0.395	-0.01
6	0.039	442.200	44.000		0 505	0.040	204 52
## 0	NumCompaniesWorked -25.266	-113.398	44.902	-0.062	-2.525	0.012	-201.53
##	PerformanceRating	-136.159	274.042	-0.011	-0.497	0.619	-674.03
9	401.720						
	RelationshipSatisfaction	53.309	89.878	0.013	0.593	0.553	-123.10
0 ##	229.717 StockOptionLevel	-37.884	117.138	-0.007	-0.323	0.746	-267.79
7	192.030	37.001	117,1130	0.007	0.323	01710	207.73
##	TotalWorkingYears	496.874	19.609	0.812	25.339	0.000	458.38
6	535.361	40 526	70.026	0.013	0 (22	0 524	201 60
##	TrainingTimesLastYear 104.640	-48.526	78.036	-0.013	-0.622	0.534	-201.69
##	WorkLifeBalance	49.566	139.614	0.008	0.355	0.723	-224.46
3	323.594						
##	YearsAtCompany	43.564	36.453	0.057	1.195	0.232	-27.98
4 ##	<pre>115.112    YearsInCurrentRole</pre>	-19.784	45.633	-0.016	-0.434	0.665	-109.35
2	69.783	10.704	÷2.033	0.010	0.754	0.005	100.00
## 6	YearsSinceLastPromotion 13.187	-67.420	41.068	-0.047	-1.642	0.101	-148.02
##	YearsWithCurrManager	-82.511	44.684	-0.064	-1.847	0.065	-170.21

```
5
      5.193
##
##
## - EnvironmentSatisfaction
##
## Backward Elimination: Step 2
##
##
   Variable EnvironmentSatisfaction Removed
##
##
                         Model Summary
## -----
## R
                      0.784
                                 RMSE
                                                   2884.456
## R-Squared
                      0.615
                                Coef. Var
                                                    45.138
## Adj. R-Squared
                                MSE
                      0.606
                                                8320088.977
## Pred R-Squared
                      0.594
                                MAE
                                                   2126.075
##
   RMSE: Root Mean Square Error
   MSE: Mean Square Error
   MAE: Mean Absolute Error
##
##
##
                                 ANOVA
##
##
                     Sum of
##
                     Squares DF Mean Square F
                                                                Sig.
  ______
##
                                 19
## Regression
                                       594607829.291
                                                      71.467
              11297548756.525
                                                              0.0000
## Residual
              7072075630.670
                                 850
                                         8320088.977
## Total
                                 869
              18369624387.195
##
##
                                       Parameter Estimates
                  model
                             Beta Std. Error Std. Beta t
##
                                                                    Sig
                                                                             lowe
r
      upper
##
             (Intercept)
                          1987.135
                                    1215.894
                                                                   0.103
                                                            1.634
                                                                           -399.37
1
    4373.642
                           207.923
                                  291.494
                                              0.017
##
               Attrition
                                                           0.713
                                                                   0.476
                                                                           -364.21
0
     780.056
           BusinessTravel
                         -161.678
                                      186.538
                                                  -0.019
                                                           -0.867
                                                                   0.386
                                                                           -527.80
##
6
     204.451
                                                  0.007
##
               DailyRate
                            0.075
                                        0.246
                                                           0.306
                                                                   0.760
                                                                           -0.40
8
      0.559
##
         DistanceFromHome
                           -6.662
                                       12.227
                                                  -0.012
                                                           -0.545
                                                                   0.586
                                                                            -30.66
      17.337
0
##
              HourlyRate
                           -4.725
                                        4.928
                                                  -0.021
                                                           -0.959
                                                                   0.338
                                                                            -14.39
      4.948
8
##
           JobInvolvement
                           72.814
                                      143.714
                                                   0.011
                                                           0.507
                                                                   0.613
                                                                           -209.26
```

##	354.890						
	JobSatisfaction	-92.731	L 90.6	996 -0.022	-1.029	0.304	-269.5
7	84.105						
##	MonthlyRate	0.012	0.0	0.018	0.842	0.400	-0.0
б шш	0.039	112 50/	- 44 (	0.00	2 522	0.013	201
## 4	NumCompaniesWorked -25.537	-113.596	5 44.8	865 -0.062	2 -2.532	0.012	-201.
<del>+</del> ##	PerformanceRating	-135.863	3 273.8	883 -0.011	-0.496	0.620	-673.4
8	401.703	-133.00.	2/3.0	-0.011	-0.450	0.020	-075
	RelationshipSatisfaction	53.376	89.8	826 0.013	0.594	0.553	-122.9
7	229.677						
##	StockOptionLevel	-38.345	117.6	947 -0.007	-0.328	0.743	-268.6
0	191.389						
##	TotalWorkingYears	497.023	3 19.	582 0.812	25.381	0.000	458.5
8	535.459						
##	TrainingTimesLastYear	-48.192	2 77.9	972 -0.013	-0.618	0.537	-201.2
3	104.849						
##	WorkLifeBalance	47.733	3 139.2	206 0.007	0.343	0.732	-225.4
6	320.961						
##	YearsAtCompany	43.609	36.4	431 0.057	1.197	0.232	-27.8
7	115.115	00.40				0.650	400
##	YearsInCurrentRole	-20.133	3 45.	571 -0.016	-0.442	0.659	-109.5
<u>и</u> п	69.312	67.600	. 41 /	222 0.045	1 (40	0 100	140
##	YearsSinceLastPromotion	-67.608	3 41.6	933 -0.047	-1.648	0.100	-148.1
6 ##	12.929 YearsWithCurrManager	-82.194	1 44.6		-1.842	0.066	-169.7
## 8	5.400	-02.134	+ 44.0	028 -0.004	-1.042	0.000	-109.7
##							
щи							
##							
## ##							
##	- DailyRate						
##	- DailyRate						
## ## ##	- DailyRate Backward Elimination: Step	o 3					
## ## ##	·	) 3					
## ## ## ##	·						
## ## ##	Backward Elimination: Step	ed					
## ## ## ## ##	Backward Elimination: Step Variable DailyRate Remove	ed Model Sur	-				
## ## ## ## ## ##	Backward Elimination: Step Variable DailyRate Remove	ed Model Sur					
## ## ## ## ## ##	Backward Elimination: Step  Variable DailyRate Remove  R  0	Model Sur	RMSE	2882.			
## ## ## ## ## ## ##	Backward Elimination: Step  Variable DailyRate Remove  R 0.  R-Squared 0.	Model Sur  784 615	RMSE Coef. Var	2882. 45.	114		
## ## ## ## ## ## ## ##	Backward Elimination: Step Variable DailyRate Remove  R R-Squared Adj. R-Squared	Model Sur 784 615 607	RMSE Coef. Var	2882. 45. 8311225.	114 534		
## ## ## ## ## ## ## ##	Backward Elimination: Step Variable DailyRate Remove  R R-Squared Adj. R-Squared Pred R-Squared 0.	Model Sur 784 615 607 595	RMSE Coef. Var MSE MAE	2882. 45. 8311225. 2124.	114 534 974		
## ## ## ## ## ## ## ##	Backward Elimination: Step Variable DailyRate Remove  R	Model Sur 784 615 607 595	RMSE Coef. Var MSE MAE	2882. 45. 8311225. 2124.	114 534 974		
## ## ## ## ## ## ## ## ##	Backward Elimination: Step Variable DailyRate Remove  R R-Squared Adj. R-Squared Pred R-Squared RMSE: Root Mean Square Er	Model Sur 784 615 607 595	RMSE Coef. Var MSE MAE	2882. 45. 8311225. 2124.	114 534 974		
######################################	Backward Elimination: Step Variable DailyRate Remove  R	Model Sur 784 615 607 595	RMSE Coef. Var MSE MAE	2882. 45. 8311225. 2124.	114 534 974		
## ## ## ## ## ## ## ## ##	Backward Elimination: Step Variable DailyRate Remove  R R-Squared Adj. R-Squared Pred R-Squared RMSE: Root Mean Square Er	Model Sur 784 615 607 595	RMSE Coef. Var MSE MAE	2882. 45. 8311225. 2124.	114 534 974		
####################	Backward Elimination: Step Variable DailyRate Remove  R	Model Sur 784 615 607 595	RMSE Coef. Var MSE MAE	2882. 45. 8311225. 2124.	114 534 974		
######################################	Backward Elimination: Step Variable DailyRate Remove  R	Model Sur 784 615 607 595	RMSE Coef. Var MSE MAE	2882. 45. 8311225. 2124.	114 534 974		
######################	Backward Elimination: Step Variable DailyRate Remove  R	Model Sur 784 615 607 595	RMSE Coef. Var MSE MAE	2882. 45. 8311225. 2124.	114 534 974		

##							
	Regression 11296771457				512 0.00	00	
	Residual 7072852929			1225.534			
	Total 18369624387						
##							
##				eter Estimates			
##							
##	model	Reta	Std Error	Std. Beta	+	Sig	lowe
	upper	Беса	Jan Ello	Jeu. Deca	C	3 <u>+</u> g	TOWE
	<b>ч</b> рреі						
##	(Intercept)	2048.827	1198.386	5	1.710	0.088	-303.31
2	4400.966						
##	Attrition	209.933	291.265	0.017	0.721	0.471	-361.74
8	781.615						
##	BusinessTravel	-163.868	186.301	-0.019	-0.880	0.379	-529.53
1	201.795						
##		-6.610	12.219	-0.012	-0.541	0.589	-30.59
4	17.373	4 657	4 024	0.030	0.046	0.244	14 21
## 5	HourlyRate 5.001	-4.657	4.921	-0.020	-0.946	0.344	-14.31
##	JobInvolvement	7/ 928	1/13 //71	0.011	0.522	0.602	-206.67
0	356.527	74.920	143.47	0.011	0.322	0.002	-200.07
##	JobSatisfaction	-92.515	90.045	-0.022	-1.027	0.305	-269.25
1	84.221				_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
##	MonthlyRate	0.012	0.014	0.018	0.833	0.405	-0.01
6	0.039						
##	NumCompaniesWorked	-113.014	44.800	-0.062	-2.523	0.012	-200.94
6	-25.082						
##	PerformanceRating	-138.044	273.644	-0.011	-0.504	0.614	-675.14
0	399.051						
	RelationshipSatisfaction	53.727	89.771	0.013	0.598	0.550	-122.47
1 ##	229.925 StockOptionLevel	20 120	116.982	-0.007	-0.326	0.745	-267.73
7	191.478	-38.129	116.982	-0.007	-0.320	0.745	-267.73
##	TotalWorkingYears	497.022	19.572	0.812	25.395	0.000	458.60
7	535.437	1371022	131371	0.012	23,333	0.000	130.00
##	TrainingTimesLastYear	-48.325	77.936	-0.013	-0.620	0.535	-201.28
2	104.631						
##	WorkLifeBalance	46.279	139.051	0.007	0.333	0.739	-226.64
4	319.203						
##	YearsAtCompany	43.399	36.406	0.057	1.192	0.234	-28.05
6	114.854					_	
##	YearsInCurrentRole	-19.442	45.491	-0.015	-0.427	0.669	-108.72
9	69.845	CO 201	40.00		1 (()	0.000	140 60
##	YearsSinceLastPromotion	-68.201	40.965	-0.047	-1.665	0.096	-148.60
6 ##	12.203 YearsWithCurrManager	-82.333	44.602	-0.064	-1.846	0.065	-169.87
6	5.209	-02.333	44.002	-0.004	-1.040	0.000	-109.07
##							

```
-----
##
##
## - StockOptionLevel
##
## Backward Elimination: Step 4
##
##
  Variable StockOptionLevel Removed
##
##
                      Model Summary
##
  ______
## R
                             RMSE
                    0.784
                                              2881.407
## R-Squared
                    0.615
                             Coef. Var
                                                45.091
## Adj. R-Squared
                    0.607
                             MSE
                                            8302506.929
## Pred R-Squared
                    0.595
                             MAE
                                              2125.523
## -----
##
  RMSE: Root Mean Square Error
##
  MSE: Mean Square Error
  MAE: Mean Absolute Error
##
##
##
                             ANOVA
## -----
##
                   Sum of
##
                   Squares
                             DF
                                    Mean Square
## -----
## Regression 11295888483.779
                             17
                                   664464028.458 80.032 0.0000
## Residual
            7073735903.416
                              852
                                    8302506.929
                              869
## Total
            18369624387.195
##
##
                                   Parameter Estimates
##
                         Beta Std. Error Std. Beta t
                model
                                                             Sig
                                                                      lowe
      upper
##
            (Intercept)
                       2037.612 1197.264
                                                      1.702
                                                             0.089
                                                                   -312.32
   4387.544
0
##
                       196.800
                                   288.313
                                             0.016
                                                      0.683
                                                             0.495
                                                                   -369.08
             Attrition
7
    762.687
                                   186.159
##
         BusinessTravel
                       -162.546
                                             -0.019
                                                     -0.873
                                                             0.383
                                                                    -527.93
1
    202.838
        DistanceFromHome
                       -6.956
                                   12.167
                                             -0.012
                                                     -0.572
                                                             0.568
##
                                                                    -30.83
6
     16.924
##
             HourlyRate
                     -4.758
                                   4.908
                                             -0.021
                                                     -0.969
                                                             0.333
                                                                   -14.39
2
      4.876
##
         JobInvolvement
                        73.157
                                  143.293
                                             0.011
                                                     0.511
                                                             0.610
                                                                    -208.09
1
    354.406
##
         JobSatisfaction
                       -92.299
                                   89.995
                                             -0.022
                                                     -1.026
                                                             0.305
                                                                    -268.93
7
     84.340
                                    0.014
##
            MonthlyRate
                         0.012
                                              0.018
                                                      0.850
                                                             0.396
                                                                     -0.01
```

	0.039									
#	NumCompa	niesWorked	-113.76	9	44.717	-0.062	-2.5	44 6	0.011	-201.
	-26.001									
#	Perform	anceRating	-136.10	1	273.435	-0.011	-0.4	98 6	0.619	-672.
7	400.584									
##	RelationshipSa	tisfaction	55.17	1	89.614	0.013	0.6	16 6	0.538	-120.
)	231.061									
##	TotalWo	rkingYears	497.13	9	19.558	0.812	25.4	18 6	0.000	458.
L	535.527									
##	TrainingTim	esLastYear	-48.79	9	77.875	-0.014	-0.6	27 6	0.531	-201.
)	104.051									
##	WorkL	ifeBalance	44.95	8	138.919	0.007	0.3	24 6	746	-227.
5	317.622									
##	Year	sAtCompany	43.65	2	36.378	0.057	7 1.2	00 G	0.230	-27.
)	115.054									
##	YearsInC	urrentRole	-20.58	7	45.331	-0.016	-0.4	54 6	0.650	-109.
L	68.386									
##	YearsSinceLas	tPromotion	-68.23	1	40.943	-0.047	7 -1.6	66 6	0.096	-148.
3	12.131									
##	YearsWithC	urrManager	-82.12	8	44.574	-0.064	-1.8	43 6	0.066	-169.
5	5.359									
## ## ## ##	- WorkLifeBala	nce								
‡# ‡# ‡#	- WorkLifeBala Backward Elimi Variable Work	nation: Step								
## ## ## ## ##	Backward Elimi	nation: Step	Removed	mmarv						
## ## ## ## ## ##	Backward Elimi Variable Work	nation: Step LifeBalance	Removed Model Su	-						
## ## ## ## ##	Backward Elimi Variable Work	nation: Step LifeBalance	Removed Model Su	-		 2879.				
#######################################	Backward Elimi Variable Work R	nation: Step LifeBalance  0.	Removed  Model Su	 RMSE	Var	2879	895			
#############	Backward Elimi Variable Work  R R-Squared	nation: Step LifeBalance 0. 0.	Model Su  784 615	RMSE Coef.		2879. 45.	.895 .067			
###########	Backward Elimi Variable Work R	nation: Step LifeBalance 0. 0. 0.	Model Su  784 615 608	RMSE Coef. MSE	Var	2879. 45.	.895 .067 .053			
############	Backward Elimi Variable Work  R R-Squared Adj. R-Squared	nation: Step LifeBalance 0. 0. 0.	Model Su 784 615 608 596	RMSE Coef. MSE MAE	Var	2879. 45. 8293793. 2125.	.895 .067 .053 .812			
#############	Backward Elimi Variable Work  R R-Squared Adj. R-Squared Pred R-Squared	nation: Step LifeBalance  0. 0. 0.	Model Su 	RMSE Coef. MSE MAE	Var	2879. 45. 8293793. 2125.	.895 .067 .053 .812			
###############	Backward Elimi Variable Work  R R-Squared Adj. R-Squared Pred R-Squared RMSE: Root Me	nation: Step LifeBalance  0. 0. 0. an Square Er	Model Su 	RMSE Coef. MSE MAE	Var	2879. 45. 8293793. 2125.	.895 .067 .053 .812			
###############	Backward Elimi Variable Work  R R-Squared Adj. R-Squared Pred R-Squared	nation: Step LifeBalance  0. 0. 0. an Square Erare Error	Model Su 	RMSE Coef. MSE MAE	Var	2879. 45. 8293793. 2125.	.895 .067 .053 .812			
###################	Backward Elimi Variable Work  R R-Squared Adj. R-Squared Pred R-Squared RMSE: Root Me	nation: Step LifeBalance  0. 0. 0. an Square Erare Error	Model Su 	RMSE Coef. MSE MAE	Var	2879. 45. 8293793. 2125.	.895 .067 .053 .812			
##################	Backward Elimi Variable Work  R R-Squared Adj. R-Squared Pred R-Squared	nation: Step LifeBalance  0. 0. 0. an Square Erare Error	Model Su 	RMSE Coef. MSE MAE	Var	2879. 45. 8293793. 2125.	.895 .067 .053 .812			
##################	Backward Elimi Variable Work  R R-Squared Adj. R-Squared Pred R-Squared RMSE: Root Me MSE: Mean Squ	nation: Step LifeBalance  0. 0. 0. an Square Er are Error olute Error	Model Su  784 615 608 596	RMSE Coef. MSE MAE	Var	2879. 45. 8293793. 2125.	895 067 053 812			
###################	Backward Elimi Variable Work  R R-Squared Adj. R-Squared Pred R-Squared	nation: Step LifeBalance  0. 0. 0. an Square Er are Error olute Error	Model Su 	RMSE Coef. MSE MAE	Var	2879. 45. 8293793. 2125.	895 067 053 812			
#####################	Backward Elimi Variable Work  R R-Squared Adj. R-Squared Pred R-Squared RMSE: Root Me MSE: Mean Squ	nation: Step LifeBalance  0. 0. 0. an Square Er are Error olute Error	Model Su 	RMSE Coef. MSE MAE	Var	2879. 45. 8293793. 2125.	.895 .067 .053 .812			
#####################	Backward Elimi Variable Work R R-Squared Adj. R-Squared Pred R-SquaredRMSE: Root Me. MSE: Mean Squ. MAE: Mean Abs.	nation: Step LifeBalance  0. 0. 0. an Square Er are Error olute Error Sum Squa	Model Su 	RMSE Coef. MSE MAE	Var	2879. 45. 8293793. 2125.	895 067 053 812	Sig.		
######################	Backward Elimi Variable Work  R R-Squared Adj. R-Squared Pred R-Squared RMSE: Root Me MSE: Mean Squ MAE: Mean Abs	nation: Step LifeBalance  0. 0. 0. an Square Er are Error olute Error Sum Squa	Model Su 784 615 608 596 Pror	RMSE Coef. MSE MAE	Var	2879. 45. 8293793. 2125.	.895 .067 .053 .812 	Sig.	-	
#######################	Backward Elimi Variable Work  R R-Squared Adj. R-Squared Pred R-Squared RMSE: Root Me MSE: Mean Squ MAE: Mean Abs	nation: Step LifeBalance  0. 0. 0. an Square Er are Error olute Error Sum Squa	Model Su 784 615 608 596 ror	RMSE Coef. MSE MAE	Var  Mean Sc	2879. 45. 8293793. 2125. 	.895 .067 .053 .812 	Sig.		
########################	Backward Elimi Variable Work  R R-Squared Adj. R-Squared Pred R-Squared	nation: Step LifeBalance  0. 0. 0. an Square Er are Error olute Error Sum Squa	Model Su 	RMSE Coef. MSE MAE  ANOVA  DF  16 853	Var  Mean Sc	2879. 45. 8293793. 2125. 	.895 .067 .053 .812 	Sig.	-	
#########################	Backward Elimi Variable Work  R R-Squared Adj. R-Squared Pred R-Squared	nation: Step LifeBalance  0. 0. 0. an Square Er are Error olute Error Sum Squa	Model Su 784 615 608 596 Pror	ANOVA  DF  16 853 869	Mean Sc 	2879. 45. 8293793. 2125. 	.895 .067 .053 .812 	Sig.		

##				r Estimates			
##							
##	model	Beta	Std. Error	Std. Beta	t	Sig	lowe
r	upper						
##	(Intercept)	2151.299	1143.968		1.881	0.060	-94.02
3	4396.620	225 242		0.044	0 744	0 475	250 20
9	Attrition 768.428	205.060	287.030	0.016	0.714	0.475	-358.30
##	BusinessTravel	-161.514	186.034	-0.019	-0.868	0.386	-526.65
2	203.624						
##	DistanceFromHome	-6.969	12.160	-0.012	-0.573	0.567	-30.83
7	16.898						
##	HourlyRate	-4.798	4.904	-0.021	-0.978	0.328	-14.42
4 ##	4.828 JobInvolvement	72.552	143.205	0.011	0.507	0.613	-208.52
5	353.628	72.332	143.203	0.011	0.507	0.013	-200.32
##	JobSatisfaction	-93.303	89.894	-0.023	-1.038	0.300	-269.74
4	83.137						
##	MonthlyRate	0.012	0.014	0.018	0.850	0.395	-0.01
5 ##	0.039	-113.261	44.666	-0.062	-2.536	0.011	-200.92
9	NumCompaniesWorked -25.593	-113.201	44.000	-0.062	-2.556	0.011	-200.92
##	PerformanceRating	-134.522	273.248	-0.011	-0.492	0.623	-670.83
9	401.796						
	RelationshipSatisfaction	55.987	89.532	0.013	0.625	0.532	-119.74
2	231.715	406 073	10 541	0.013	25 422	0.000	450 64
7	TotalWorkingYears 535.326	496.972	19.541	0.812	25.432	0.000	458.61
##	TrainingTimesLastYear	-48.305	77.819	-0.013	-0.621	0.535	-201.04
5	104.435						
##	YearsAtCompany	43.420	36.352	0.057	1.194	0.233	-27.92
9	114.770						
## 8	YearsInCurrentRole 69.289	-19.290	45.130	-0.015	-0.427	0.669	-107.86
##	YearsSinceLastPromotion	-67.839	40.904	-0.047	-1.658	0.098	-148.12
3	12.445			<b>3.3</b>			
##	YearsWithCurrManager	-82.695	44.516	-0.064	-1.858	0.064	-170.06
9	4.679						
##							
##							
##							
##	- YearsInCurrentRole						
##		_					
	Backward Elimination: Step	6					
##							

Variable YearsInCurrentRole Removed

Model Summary

## ## ##

##										
##	R	0.	784	RMSE			2878.51	16		
	R-Squared									
	Adj. R-Squared		608 I				35855.61			
	Pred R-Squared						2125.56			
	DMCE: Doot Ma									
	RMSE: Root Me MSE: Mean Squ		r.or.							
##										
##	MAL. Mean Ab.	SOLUCE LITOI								
##				ANOVA						
##		Sum	of							
##		Squa	res	DF	Mean	Square	F	Si	g.	
	Regression						90.8	366 0.00	00	
	Residual				82858	355.619				
	Total									
##					Danamot	ter Esti	imates			
##		model	Beta	St	d. Error	Std.	Beta	t	Sig	lowe
r	upper								_	
##										
		<b>/-</b>	24.6		4440 070			4 004	0.050	74 70
		(Intercept)	2166.464		1142.8/0			1.896	0.058	-76.70
0 ##		Attrition	194 363		285 800		0 016	0.680	a 497	-366 59
	755.317	7.00. 101011	1511505		203.000		0.010	0.000	0.157	300.33
##		inessTravel	-162.365		185.934	-	0.019	-0.873	0.383	-527.30
6	202.577									
##	Distar	nceFromHome	-7.086		12.151	-	0.013	-0.583	0.560	-30.93
6	16.764									
##	4 00=	HourlyRate	-4.794		4.902	-	-0.021	-0.978	0.328	-14.41
5	4.827	r1	70 240		142 025		0 011	0 401	0 622	210 10
## 4	350.990	Involvement	70.248		143.035		0.011	0.491	0.623	-210.49
##		atisfaction	-91.668		89.770	_	-0.022	-1.021	0.307	-267.86
4	84.528	201314001011	32.000		031,70		0.022	1.021	0.307	207.00
##		MonthlyRate	0.011		0.014		0.018	0.824	0.410	-0.01
6	0.039									
##	NumCompa	aniesWorked	-113.884		44.621	-	0.062	-2.552	0.011	-201.46
3	-26.304									
##		nanceRating	-139.698		272.849	-	0.011	-0.512	0.609	-675.23
1	395.835	+icfac+:	FC 404		00 401		0 014	0 (31	Q F30	110 12
## 5	RelationshipSa 232.123	acistaction	56.494		89.481		0.014	0.631	0.528	-119.13
5 ##		orkingYears	497.323		19.515		0.813	25.485	0.000	459.02
0	535.625	Zi Kilig i Cai 3	777.323		17.713		0.013	27.707	0.000	777.02
##		nesLastYear	-46.799		77.702	-	0.013	-0.602	0.547	-199.30
	J									

9	105.711									
##	YearsAtCom	ınanv	37 111		33.204	a	0.049	1 118	0 26	4 -28.06
0	102.281	iparry	37.111		33.204	•	7.043	1.110	0.20	- 20.00
##	YearsSinceLastPromo	tion	-69.810		40.624	-6	0.048	-1.718	0.08	6 -149.54
4	9.925		03.020		.0.02	·		1.710	0.00	2.3.3.
	YearsWithCurrMan	ager	-87.854		42.828	-6	0.068	-2.051	0.04	1 -171.91
	-3.793	iabe.	0, 103 .		121020	·		2.032	0.0.	
##										
##										
	- JobInvolvement									
##										
	Backward Elimination	: Step 7								
##		·								
	Variable JobInvolve	ment Rem	oved							
##			-							
##		М	odel Sum	narv						
				-						
##	R	0.78	4	RMSE		2	2877.239			
	R-Squared				Var					
	Adj. R-Squared	0.60		MSE			3502.071			
	Pred R-Squared						2126.848			
	'									
##	RMSE: Root Mean Squ	are Erro	r							
	·									
##	MSE. Mean Square en	ror								
##	MSE: Mean Square Er MAE: Mean Absolute									
	MAE: Mean Absolute									
##	·			ANOVA						
## ##	·		,	ANOVA						
## ## ##	·			anova						
## ## ## ##	·	Error	 f	Anova  Df	 Mean S		 F	 Si		
## ## ## ## ##	•	Error  Sum o Square	 f s	DF				Si	g.	
## ## ## ## ##	MAE: Mean Absolute	Error  Sum o Square	 f s 	DF	Mean S	quare	F			
## ## ## ## ## ##	MAE: Mean Absolute	Error  Sum o Square	 f s 2	DF 	Mean S  80653607	quare  '9.743	F			
## ## ## ## ## ##	MAE: Mean Absolute	Error  Sum o Square	 f s  2 3	DF  14 855	Mean S  80653607	quare  '9.743	F			
## ## ## ## ## ## ##	MAE: Mean Absolute	Error  Sum o Square  05116.40 19270.79	 f s  2 3	DF  14 855 869	Mean S  80653607 827850	quare  9.743 2.071	F  97.425	0.00	00	
## ## ## ## ## ## ##	MAE: Mean Absolute	Error  Sum o Square  05116.40 19270.79	 f s  2 3	DF  14 855 869	Mean S  80653607 827850	quare  9.743 2.071	F  97.425	0.00	 00	
## ## ## ## ## ## ##	MAE: Mean Absolute	Error  Sum o Square  05116.40 19270.79	 f s  2 3	DF  14 855 869	Mean S  80653607 827850	quare  9.743 12.071	F  97.425	0.00	 00	
## ## ## ## ## ## ##	MAE: Mean Absolute	Error  Sum o Square 605116.40 19270.79 524387.19	f s  2 3 5	DF  14 855 869	Mean S  80653607 827850 	quare  9.743 2.071 	F 97.425	0.00	 00 	
## ## ## ## ## ## ##	MAE: Mean Absolute	Error  Sum o Square 605116.40 19270.79 524387.19	f s  2 3 5	DF  14 855 869	Mean S  80653607 827850 	quare  9.743 2.071 	F 97.425	0.00	 00 	
## ## ## ## ## ## ##	MAE: Mean Absolute	Error  Sum o Square  05116.40 19270.79 24387.19	 f s  2 3 5 	DF 14 855 869	Mean S  80653607 827850 	quare  9.743 02.071 	F 97.425 	0.00		lowe
## ## ## ## ## ## ## ##	MAE: Mean Absolute	Error  Sum o Square  05116.40 19270.79 24387.19	 f s  2 3 5 	DF 14 855 869	Mean S  80653607 827850  Paramete	quare  9.743 02.071 	F 97.425 	0.00		
## ## ## ## ## ## ## r	MAE: Mean Absolute	Sum o Square 	f s	DF 14 855 869	Mean S 80653607 827850 Paramete d. Error	quare  9.743 2.071  er Estin	F 97.425 nates Beta	0.00	 00  Sig	lowe
## ## ## ## ## ## ## r	MAE: Mean Absolute  Regression 112915 Residual 70781 Total 183696	Sum o Square 	f s	DF 14 855 869	Mean S 80653607 827850 Paramete d. Error	quare  9.743 2.071  er Estin	F 97.425 nates Beta	0.00	 00  Sig	lowe
## ## ## ## ## ## ## r	MAE: Mean Absolute  Regression 112915 Residual 70781 Total 183696   upper	Error  Sum o Square 05116.40 19270.79 24387.19	F s s s s s s s s s s s s s s s s s s s	DF  14 855 869 	Mean S 80653607 827850 Paramete d. Error	quare  9.743 2.071  er Estin	F 97.425 nates Beta	0.00	 00  Sig	lowe
## ## ## ## ## ## ## r # r #	MAE: Mean Absolute  Regression 112915 Residual 70781 Total 183696   upper	Error  Sum o Square 05116.40 19270.79 24387.19	F s s s s s s s s s s s s s s s s s s s	DF  14 855 869 	Mean S 80653607 827850 Paramete d. Error	quare  9.743 2.071  er Estin	F 97.425 nates Beta	0.00	 00  Sig	lowe
########## ###########################	MAE: Mean Absolute	Error  Sum o Square 05116.40 19270.79 24387.19	F s s s s s s s s s s s s s s s s s s s	DF 14 855 869	Mean S 80653607 827850 Paramete d. Error	quare  9.743 2.071  r Estin 	F 97.425 ates Beta	0.00	 000  Sig 	lowe3 185.83
## ## ## ## ## ## ## ## ## ## ## ## ##	MAE: Mean Absolute	Error  Sum o Square 05116.40 19270.79 24387.19	F s s s s s s s s s s s s s s s s s s s	DF 14 855 869	Mean S 80653607 827850 Paramete d. Error 1092.599	quare  9.743 2.071  r Estin 	F 97.425 ates Beta	t 2.133	 Sig 	lowe3 185.83
########### ##########################	MAE: Mean Absolute	Error  Sum o Square 05116.40 19270.79 024387.19 nodel	f s 2 3 5 Beta 2330.325	DF 14 855 869	Mean S 80653607 827850 Paramete d. Error 1092.599	quare  9.743 2.071  er Estin 	F 97.425	t 2.133 0.799	Sig 0.03 0.42	lowe 3 185.83 5 -325.43
############# -# -# -# -# -# 7	MAE: Mean Absolute  Regression 112915 Residual 70781 Total 183696  upper  upper  (Interc	Error  Sum o Square 05116.40 19270.79 024387.19 nodel	f s 2 3 5 Beta 2330.325	DF 14 855 869	Mean S 80653607 827850 Paramete d. Error 1092.599	quare  9.743 2.071  er Estin 	F 97.425  mates Beta	t 2.133	Sig 0.03 0.42	lowe 3 185.83 5 -325.43
############# 	MAE: Mean Absolute  Regression 112915 Residual 70781 Total 183696  upper  upper  (Interd 4474.816  Attri 771.952  BusinessTr	Error  Sum o Square 05116.40 19270.79 224387.19 nodel ept) tion	f s 2 3 5 Beta 2330.325	DF 14 855 869	Mean S 80653607 827850 Paramete d. Error 1092.599	quare  9.743 2.071  r Estin  Std.	F	t 2.133 0.799	Sig 0.03 0.42 0.39	lowe 3 185.83 5 -325.43

_									
9 ##	16.789	HourlyRate	-4.622		4.887	-0.020	-0.946	0.345	-14.2
<del>†#</del>	4.970	Hourtykate	-4.022		4.007	-0.020	-0.540	0.343	-14.2
, ‡#		atisfaction	-94.866		89.494	-0.023	-1.060	0.289	-270.5
·π Э	80.788	ac131 acc1011	- 54.000		07.474	-0.023	-1.000	0.205	-270.5
##		MonthlyRate	0.011		0.014	0.017	0.813	0.416	-0.6
5	0.038		010			0.027	0.025	01.20	
##		aniesWorked	-113.908		44.601	-0.062	-2.554	0.011	-201.4
8	-26.367								
##	Perfor	manceRating	-138.395		272.715	-0.011	-0.507	0.612	-673.6
4	396.875								
##	RelationshipS	atisfaction	56.645		89.441	0.014	0.633	0.527	-118.9
4	232.194								
##	TotalW	lorkingYears	497.191		19.504	0.813	25.492	0.000	458.9
0	535.473								
##	TrainingTi	mesLastYear	-48.356		77.603	-0.013	-0.623	0.533	-200.6
1	103.959								
##		rsAtCompany	36.135		33.129	0.047	1.091	0.276	-28.8
0	101.159								
##	YearsSinceLa	stPromotion	-69.643		40.605	-0.048	-1.715	0.087	-149.3
0 	10.053		04.044		40 760	0.060	0.004		470 -
##		CurrManager	-86.844		42.760	-0.068	-2.031	0.043	-170.7
1	-2.918								
 ## ## ##	- Performance								
 ## ## ## ##		Rating							
 ## ## ## ## ##	- Performance	Rating ination: Step	o 8						
 ## ## ## ## ##	- Performance Backward Elim	Rating ination: Step	o 8						
	- Performance Backward Elim Variable Per	Rating ination: Step formanceRatin	o 8 ng Removed Model Sum	mary					
	- Performance Backward Elim Variable Per	Rating ination: Step formanceRatir	o 8 ng Removed Model Sum	mary					
	- Performance Backward Elim Variable Per	Rating ination: Step formanceRatin	o 8 ng Removed Model Sum	mary 		2875.99			
	- Performance Backward Elim Variable PerR R-Squared	Rating ination: Step formanceRatin	ng Removed  Model Sum  784	mary  RMSE Coef. V	ar	2875.99 45.00	96		
	- Performance Backward Elim Variable PerR R-Squared Adj. R-Square	Rating ination: Step formanceRatin 0. 0. 0. d 0.	0 8  Model Sum  784 615	mary  RMSE Coef. V MSE	 ar	2875.99 45.00 8271321.48	96 39		
	- Performance Backward Elim Variable Per  R R-Squared Adj. R-Square Pred R-Square	Rating ination: Step formanceRatin	0 8 ng Removed Model Sum .784 .615 .609	mary  RMSE Coef. V MSE MAE	ar	2875.99 45.00 8271321.48 2127.33	96 39 88		
	- Performance Backward Elim Variable Per R R-Squared Adj. R-Square Pred R-Square	Rating ination: Step formanceRatin  0. 0. d 0. d 0.	Model Sum 784 615 609	mary  RMSE Coef. V MSE MAE	ar	2875.99 45.00 8271321.48 2127.33	96 39 88		
- + + + + + + + + + + + + + + + + + + +	- Performance Backward Elim Variable Per R R-Squared Adj. R-Square Pred R-Square	Rating ination: Step formanceRatin  0. 0. d 0. d 0. d 0. ed 0.	Model Sum 784 615 609	mary  RMSE Coef. V MSE MAE	ar	2875.99 45.00 8271321.48 2127.33	96 39 88		
- + + + + + + + + + + + + + + + + + + +	- Performance Backward Elim Variable Per R R-Squared Adj. R-Square Pred R-Square RMSE: Root M	Rating ination: Step formanceRatin  0. 0. d 0. d 0. lean Square Er	Model Sum 784 615 609	mary  RMSE Coef. V MSE MAE	ar	2875.99 45.00 8271321.48 2127.33	96 39 88		
- + + + + + + + + + + + + + + + + + + +	- Performance Backward Elim Variable Per R R-Squared Adj. R-Square Pred R-Square RMSE: Root M	Rating ination: Step formanceRatin  0. 0. d 0. d 0. lean Square Er	Model Sum 784 615 609	mary  RMSE Coef. V MSE MAE	ar	2875.99 45.00 8271321.48 2127.33	96 39 88		
	- Performance Backward Elim Variable Per R R-Squared Adj. R-Square Pred R-Square RMSE: Root M	Rating ination: Step formanceRatin  0. 0. d 0. d 0. lean Square Er	Model Sum 784 615 609	mary  RMSE Coef. V MSE MAE	ar	2875.99 45.00 8271321.48 2127.33	96 39 88		
	- Performance Backward Elim Variable Per R R-Squared Adj. R-Square Pred R-Square RMSE: Root M	Rating ination: Step formanceRatin  0. 0. d 0. d 0. dean Square Er uare Error	0 8 ng Removed Model Sum .784 .615 .609	mary  RMSE Coef. V MSE MAE 	ar	2875.99 45.00 8271321.48 2127.33	96 39 88 		
	- Performance Backward Elim Variable Per  R R-Squared Adj. R-Square Pred R-SquareRMSE: Root M MSE: Mean Sq MAE: Mean Ab	Rating ination: Step formanceRatin  0. 0. d 0. d 0. lean Square Er uare Error solute Error	0 8 ng Removed Model Sum .784 .615 .609	mary  RMSE Coef. V MSE MAE 	ar	2875.99 45.00 8271321.48 2127.33	96 39 88 		
	- Performance Backward Elim Variable Per  R R-Squared Adj. R-Square Pred R-SquareRMSE: Root M MSE: Mean Sq MAE: Mean Ab	Rating ination: Step formanceRatin  0. 0. d 0. d 0. dean Square Er uare Error solute Error	ng Removed  Model Sum  784  615  609  Pror	mary  RMSE Coef. V MSE MAE 	ar	2875.99 45.00 8271321.48 2127.33	96 88 	Sig.	
· - ###################################	- Performance Backward Elim Variable Per  R R-Squared Adj. R-Square Pred R-SquareRMSE: Root M MSE: Mean Sq MAE: Mean Ab	Rating FormanceRatin  O O O O O O O O O O O O O O O O O O	Model Sum Model Sum .784 .615 .609 .599	mary RMSE Coef. V MSE MAE ANOVA	ar Mean Squ	2875.99 45.00 8271321.48 2127.33	96 88 		
	- Performance Backward Elim Variable Per  R R-Squared Adj. R-Square Pred R-Square RMSE: Root M MSE: Mean Sq MAE: Mean Ab	Rating ination: Step formanceRatin  0. 0. d 0. d 0. lean Square Er uare Error solute Error Sum Squa	Model Sum Model Sum .784 .615 .609 .599	mary RMSE Coef. V MSE MAE DF	ar  Mean Squ	2875.99 45.00 8271321.48 2127.33	96 89 88 		
	- Performance Backward Elim Variable Per R R-Squared Adj. R-Square Pred R-Square	Rating ination: Step formanceRatin  0. 0. d 0. d 0. dean Square Enuare Error solute Error Sun Squa	Model Sum 784 615 609 599 Fror	mary RMSE Coef. V MSE MAE DF	Mean Squ	2875.99 45.00 8271321.48 2127.33 	96 89 88 		

##								
##				Paramete	er Estimates			
##								
 ##	model	Beta	a St	d. Error	Std. Beta	t	Sig	low
<u>т</u> т	upper							
## 8	(Intercept) 3184.047	1888.577	7	660.031		2.861	0.004	593.1
##	Attrition	224.227	7	279.427	0.018	0.802	0.423	-324.2
5 ##	772.670  BusinessTravel	-158 815	;	185.350	-0.018	-0.857	0.392	-522.6
3	204.979	150.015	,	103.330	0.010	0.037	0.332	322.0
##	DistanceFromHome	-7.246	5	12.134	-0.013	-0.597	0.551	-31.0
3 ##	16.570 HourlyRate	-4.625	5	4.885	-0.020	-0.947	0.344	-14.2
3	4.963							
## 3	JobSatisfaction 81.126	-94.444	ļ	89.451	-0.023	-1.056	0.291	-270.0
ے ##	MonthlyRate	0.011	L	0.014	0.017	0.813	0.416	-0.0
6	0.038							
## 5	NumCompaniesWorked -26.018	-113.507	7	44.575	-0.062	-2.546	0.011	-200.9
	RelationshipSatisfaction	58.002	2	89.362	0.014	0.649	0.516	-117.3
2	233.397							
## 7	TotalWorkingYears 535.642	497.384	l	19.492	0.813	25.517	0.000	459.1
, ##	TrainingTimesLastYear	-47.948	3	77.565	-0.013	-0.618	0.537	-200.1
9	104.292	26.255	_	22.444	0.047	4 005	0.074	20.7
## 0	YearsAtCompany 101.249	36.255	•	33.114	0.047	1.095	0.274	-28.7
-	YearsSinceLastPromotion	-69.126	)	40.574	-0.048	-1.704	0.089	-148.7
<u>и</u> ш	10.516	07 220	,	42 721	0.068	2 044	0.041	171 1
	YearsWithCurrManager -3.460	-87.336	)	42.731	-0.068	-2.044	0.041	-171.1
##								
 ##								
##								
	- DistanceFromHome							
## ##	Backward Elimination: Ste	n 9						
##	backwar a Eliminacion. Sec	P 3						
	Variable DistanceFromHom	e Removed						
## ##		Model Sun	nmarv					
			-			-		
##			RMSE	.,	2874.911			
##	R-Squared 0	.614	Coef.	Var	44.989			

##	Pred R-Squar	red 0.	600 N	1AE	2127	.687		
##		Mean Square Er	ror					
##		Square Error Absolute Error						
##	MAL. Mean A	ADSOLUCE LITOI						
##				ANOVA				
##								
##		Sum	of					
##				DF Mean				
	_	11286423497.				13.796 0	.0000	
		7083200890.			111.890			
		18369624387.						
##								
##				Parame	ter Estimate	S		
##								
##		model	Beta	Std. Error	Std. Bet	a t	Sig	lowe
	upper							
##								
##		(Intercept)	1814 099	647 898		2 800	0.005	542.44
7		(intercept)	1014.000	047.030		2.000	0.003	342.44
##		Attrition	240.375	278.011	0.01	9 0.865	0.387	-305.28
8	786.038							
##		usinessTravel	-155.852	185.214	-0.01	8 -0.841	0.400	-519.37
8	207.673		4 007	4 074	0.00		0.224	44.27
##	4.759	HourlyRate	-4.807	4.874	-0.02	1 -0.986	0.324	-14.37
##		Satisfaction	-94.262	89.417	-0.02	3 -1.054	0.292	-269.76
4	81.240							
##		MonthlyRate	0.011	0.014	0.01	7 0.818	0.414	-0.01
6	0.038							
##		npaniesWorked	-111.206	44.391	-0.06	1 -2.505	0.012	-198.33
4	-24.078	Satisfaction	55.409	89.223	0.01	3 0.621	0.535	-119.71
2	230.530	Jaces acción	22.403	09.223	0.01	0.021	0.000	117./1
##		lWorkingYears	496.600	19.440	0.81	2 25.545	0.000	458.44
3	534.756							
##	_	√imesLastYear	-46.327	77.489	-0.01	3 -0.598	0.550	-198.41
7	105.763	41.5	<b>38 5</b> 55	22 25-			2 2 2 2	<b>0=</b> 00
##		earsAtCompany	37.003	33.078	0.04	8 1.119	0.264	-27.92
0 ##	101.927 YearsSincel	astPromotion	-68.613	40.550	-0.04	8 -1.692	0.091	-148.20
2	10.975		00.013	.0.330	0.04		0.051	110120
##		chCurrManager	-87.542	42.713	-0.06	8 -2.050	0.041	-171.37
6	-3.707							
##								
##								

```
##
## - TrainingTimesLastYear
##
## Backward Elimination: Step 10
##
  Variable TrainingTimesLastYear Removed
##
##
##
                        Model Summary
## -----
## R
                      0.784
                               RMSE
## R-Squared
                     0.614
                               Coef. Var
                                                   44.972
## Adj. R-Squared
                     0.609
                               MSE
                                               8258922.070
## Pred R-Squared
                               MAE
                      0.600
                                                 2128.879
## ------
##
  RMSE: Root Mean Square Error
##
  MSE: Mean Square Error
##
  MAE: Mean Absolute Error
##
##
                                ANOVA
##
                     Sum of
                    Squares DF Mean Square
                                                    F
##
                                                              Sig.
## -----
## Regression 11283469250.951
                               11 1025769931.905 124.201
                                                             0.0000
## Residual
             7086155136.244
                                858
                                        8258922.070
## Total
             18369624387.195
                                869
##
##
##
                                      Parameter Estimates
##
                 model
                            Beta
                                  Std. Error Std. Beta
                                                                  Sig
                                                                          lowe
r
      upper
##
             (Intercept)
                         1688.002
                                                         2.756
                                                                 0.006
                                     612.377
                                                                      486.07
0
    2889.934
##
              Attrition
                          228.661
                                     277.216
                                                 0.018
                                                         0.825
                                                                 0.410
                                                                        -315.44
0
    772.762
##
          BusinessTravel -162.691
                                     184.791
                                                -0.019
                                                         -0.880
                                                                 0.379
                                                                        -525.38
6
    200.004
##
             HourlyRate
                        -4.822
                                      4.872
                                                -0.021
                                                         -0.990
                                                                 0.323
                                                                        -14.38
4
      4.741
         JobSatisfaction
                        -91.459
                                      89.261
                                                -0.022
                                                        -1.025
                                                                 0.306
                                                                        -266.65
##
4
     83.736
##
             MonthlyRate
                           0.011
                                       0.014
                                                0.018
                                                         0.822
                                                                 0.411
                                                                        -0.01
      0.038
6
##
       NumCompaniesWorked -110.315
                                      44.349
                                                -0.060
                                                         -2.487
                                                                 0.013
                                                                        -197.36
2
     -23.269
## RelationshipSatisfaction
                         54.942
                                      89.186
                                                 0.013
                                                         0.616
                                                                 0.538
                                                                        -120.10
     229.991
6
##
        TotalWorkingYears
                       497.251
                                      19.402
                                                 0.813
                                                         25.628
                                                                 0.000
                                                                         459.17
```

0 535.3	333							
##	YearsAtCompany	35.611	l	32.984	0.0	47 1.08	0.281	-29.12
7 100.3	349							
	inceLastPromotion	-67.067	7	40.452	-0.0	46 -1.65	8 0.098	-146.46
3 12.3								
	rsWithCurrManager	-86.873	3	42.683	-0.0	68 -2.03	5 0.042	-170.64
8 -3.6	099 							
##								
##								
##								
	ionshipSatisfactio	n						
##								
## Backward	d Elimination: Ste	p 11						
##								
	le RelationshipSat	isfaction F	Remove	d				
##		Ma J - 7 C						
##		Model Sun	-					
## ## R			RMSE			 2.796		
## R-Square		.614		Var	4			
## Adj. R-S			MSE		825295			
•	•	.601	MAE		212	7.508		
##								
	Root Mean Square E	rror						
	ean Square Error							
## MAE: Me	ean Square Error ean Absolute Error							
## MAE: Me			ΔΝΟ	Δ				
## MAE: Me			ANOVA					
## MAE: Me ## ##	ean Absolute Error	 m of	ANOVA					
## MAE: Me ## ## ##	ean Absolute Erron		ANOVA		 Square	 F	 Sig.	
## MAE: Me ## ## ##	ean Absolute ErrorSu Squ	 m of					 Sig.	
## MAE: M6 ## ## ## ## ## ## ## ## ## ## ## ## ##	ean Absolute Erron Su Squion 11280334916	m of ares 	DF 10	Mean 1128033	Square 491.645	F		
## MAE: Me ## ## ## ## Regress: ## Residual	ean Absolute Error Su Squ ion 11280334916		DF 10 859	Mean 1128033	Square 491.645	F		
## MAE: Me ## ## ## ## Regress: ## Residual	ean Absolute Erron Su Squ ion 11280334916 1 7089289470 18369624387	of of or of	DF 10 859 869	Mean  1128033 8252	Square  491.645 956.311	F  136.682	0.0000	
## MAE: Me ## ## ## ## ## ## ## ## ## ## Total ##	ean Absolute Error Su Squ ion 11280334916	of of or of	DF 10 859 869	Mean  1128033 8252	Square  491.645 956.311	F	0.0000	
## MAE: Me ## ## ## ## ## ## ## ## ## Regress ## Residual ## Total ##	ean Absolute Erron Su Squ ion 11280334916 1 7089289470 18369624387	of of or of	DF 10 859 869	Mean 1128033 8252	Square  491.645 956.311	F 136.682	0.0000	
## MAE: Me ## ## ## ## ## ## ## ## ## Total ## ## ##	ean Absolute Erron Su Squ ion 11280334916 1 7089289470 18369624387	m of lares 	DF 10 859 869	Mean 1128033 82529 	Square  491.645 956.311 	F  136.682 	0.0000	
## MAE: Me ## ## ## ## ## ## ## ## ## Total ## ## ##	ean Absolute Erron Su Squ ion 11280334916 1 7089289470 18369624387	m of lares 	DF 10 859 869	Mean 1128033 82529 	Square  491.645 956.311 	F  136.682 	0.0000	
## MAE: Me ## ## ## ## ## ## ## ## ## Total ## ## ##	ean Absolute Erron Su Squ ion 11280334916 1 7089289470 18369624387	m of lares 	DF 10 859 869	Mean 1128033 82529 	Square  491.645 956.311  r Estimate	F  136.682 	0.0000	
## MAE: Me ## ## ## ## ## ## ## ## Total ## ## ## ## ## ##	ean Absolute Erron Su Squ ion 11280334916 1 7089289470 18369624387	m of lares 	DF 10 859 869	Mean 1128033 82529 	Square  491.645 956.311  r Estimate	F 136.682	0.0000	
## MAE: Me ## ## ## ## ## ## ## ## ## ## ## Total ## ## ## ## ## ## ## ## ## ## ## ## ##	ean Absolute Erron Su Squ ion 11280334916 1 7089289470 18369624387	m of ares 	DF 10 859 869	Mean 1128033 82529 Paramete	Square  491.645 956.311  r Estimate  Std. Bet	F s a t	0.0000 	lower
## MAE: Me ## ## ## ## ## ## ## ## ## ## ## Total ## ## ## ## ## ## ## ## ## ## ## ## ##	ean Absolute Erron Su Squ ion 11280334916 1 7089289470 18369624387	m of lares 	DF 10 859 869	Mean 1128033 82529 Paramete	Square  491.645 956.311  r Estimate  Std. Bet	F s a t	0.0000  Sig	lower
## MAE: Me ## ## ## ## ## ## ## ## ## ## Total ## ## ## ## ## ## ## ## ## ## ## ## ##	ean Absolute Erron Su Squ ion 11280334916 1 7089289470 18369624387	m of lares 	DF 10 859 869	Mean 1128033 82529 Paramete	Square  491.645 956.311  r Estimate  Std. Bet	F s a t	0.0000 	lower
## MAE: Me ## ## ## ## ## ## ## ## ## ## ## Total ## ## ## ## ## ## ## ## ## ## ## ## ##	ean Absolute Erron Su Squ ion 11280334916 1 7089289470 18369624387 model (Intercept)	m of ares 3.448 3.747 7.195 Beta 1825.996	DF 10 859 869	Mean 1128033 82529 Paramete	Square 	F s a t 	0.0000 Sig	lower  707.766
## MAE: Me ## ## ## ## ## ## ## ## ## ## ## ## Total ## ## ## ## ## ## ## ## ## ## ## ## ##	ean Absolute Erron Su Squ ion 11280334916 1 7089289470 18369624387	m of ares 3.448 3.747 7.195 Beta 1825.996	DF 10 859 869	Mean 1128033 82529 Paramete	Square 	F s a t	0.0000 Sig	lower  707.766
## MAE: Me ## ## ## ## ## ## ## ## ## ## Total ## ## ## ## ## ## ## ## ## 2944.225 ## 782.993	ean Absolute Error  Su Squ  ion 11280334916 1 7089289470 18369624387  model  (Intercept)  Attrition	m of ares Beta 1825.996 240.368	DF 10 859 869	Mean 1128033 82529 Paramete d. Error 569.732	Square 	F s 	0.0000 Sig 0.001 0.385	lower  707.766 -302.256
## MAE: Me ## ## ## ## ## ## ## ## ## ## ## ## Total ## ## ## ## ## ## ## ## ## 2944.225 ## 782.993 ##	ean Absolute Erron Su Squ ion 11280334916 1 7089289470 18369624387 model (Intercept)	m of ares Beta 1825.996 240.368	DF 10 859 869	Mean 1128033 82529 Paramete d. Error 569.732	Square 	F s 	0.0000 Sig 0.001 0.385	lower  707.766 -302.256
## MAE: Me ## ## ## ## ## ## ## ## ## ## Total ## ## ## ## ## ## ## ## ## 2944.225 ## 782.993	ean Absolute Error  Su Squ  ion 11280334916 1 7089289470 18369624387  model  (Intercept)  Attrition	Beta	DF 10 859 869	Mean 1128033 82529 Paramete d. Error 569.732 276.464 184.400	Square 	F	0.0000 Sig 0.001 0.385	lower 707.766 -302.256 -517.871

## JobS							
ππ 3003	atisfaction -	93.831	89.145	-0.023	-1.053	0.293	-268.79
31.137							
‡# I	MonthlyRate	0.011	0.014	0.017	0.810	0.418	-0.01
0.038							
## NumCompa	aniesWorked -1	108.360	44.220	-0.059	-2.450	0.014	-195.15
21.569							
## TotalW	orkingYears 4	196.390	19.345	0.811	25.660	0.000	458.42
34.359	_						
## Yea	rsAtCompany	36.566	32.935	0.048	1.110	0.267	-28.07
L01.209							
## YearsSinceLa	stPromotion -	65.999	40.400	-0.046	-1.634	0.103	-145.29
13.296							
	CurrManager -	88.059	42.624	-0.068	-2.066	0.039	-171.71
4.400	Ü						
#							
#							
#							
# - MonthlyRate	e						
#							
	mination: Step 12	<u>'</u>					
#							
# Variable Mo	nthlyRate Removed	j					
#							
<b>:</b> #	Мс	odel Summa	ry				
##			•				
## R		B RM		2872	. 222		
## R-Squared		l Co		44.			
## Adj. R-Squar				8249657			
	ed 0.602			2129			
•	eu 0.602						
## RMSE: Root I	Mean Square Error	•					
	•						
## MSE: Mean So	quare Error						
## MSE: Mean So	•						
## MSE: Mean So ## MAE: Mean Al	quare Error						
## MSE: Mean So ## MAE: Mean Al	quare Error	А	NOVA				
## MSE: Mean So ## MAE: Mean Al ##	quare Error						
## MSE: Mean So ## MAE: Mean Al ## ##	quare Error bsolute Error						
## MSE: Mean So ## MAE: Mean Al ## ## ##	quare Error bsolute Error Sum of						
## MSE: Mean So ## MAE: Mean Al ## ## ## 	quare Error bsolute Error Sum of Squares	 - 5	DF Meai	n Square	F		
## MSE: Mean So ## MAE: Mean Al ## ## ## ##	quare Error bsolute Error Sum of Squares	 F S	DF Mear	n Square	F	Sig.	
## MSE: Mean So ## MAE: Mean Al ## ## ## ## ## ## ## ## ## ## ## ## ##	quare Error bsolute Error  Sum of Squares 11274918542.615	 : : :	DF Mear	n Square  3726.957	F	Sig.	
## MSE: Mean So ## MAE: Mean Al ## ## ## ## Regression ## Residual	quare Error bsolute Error  Sum of Squares		DF Meai 9 1252768	n Square  3726.957	F	Sig.	
## MSE: Mean So ## MAE: Mean Al ## ## ## ## ## ## ## ## ## ## ## Regression ## Residual ## Total	quare Error bsolute Error  Sum of Squares  11274918542.615 7094705844.586 18369624387.195	5 8 9 8 8	DF Mean 9 1252766 60 824	n Square  3726.957 2 9657.959	F  151.857	Sig.  0.0000	
## MSE: Mean So ## MAE: Mean Al ## ## ## ## ## ## ## ## ## Regression ## Residual ## Total	quare Error bsolute Error  Sum of Squares	5 8 9 8 8	DF Mean 9 1252766 60 824	n Square  3726.957 2 9657.959	F  151.857	Sig.  0.0000	
## MSE: Mean So ## MAE: Mean Al ## ## ## ## ## ## ## ## ## ## ## Regression ## Residual ## ## ## ## ## ## ## ## ## ## ##	quare Error bsolute Error  Sum of Squares  11274918542.615 7094705844.586 18369624387.195	5 8 9 8 8	DF Mear 9 1252768 60 8249	n Square  8726.957	F  151.857	Sig.  0.0000	
## MSE: Mean So ## MAE: Mean Al ## ## ## ## ## ## ## ## ## ## ## Regression ## Residual ## ## ## ## ## ## ## ## ## ## ##	quare Error bsolute Error  Sum of Squares  11274918542.615 7094705844.586 18369624387.195	5 6 8 8 8 8	DF Mean 9 1252766 60 8249 69	n Square  8726.957	F  151.857	Sig.  0.0000	
## MSE: Mean So ## MAE: Mean Al ## ## ## ## ## ## ## ## ## Regression ## Residual ## Total ##	quare Error bsolute Error  Sum of Squares  11274918542.615 7094705844.586 18369624387.195	5 6 8 8 8 8	DF Mean 9 1252766 60 8249 69	n Square  8726.957	F 151.857	Sig.  0.0000	
## MSE: Mean So ## MAE: Mean Al ## ## ## ## ## ## ## ## ## Regression ## Residual ## Total ##	quare Error bsolute Error  Sum of Squares  11274918542.615 7094705844.586 18369624387.195	5 6 8 9 8 5 8	DF Mean 9 1252766 60 8249 69	n Square  8726.957	F 151.857	Sig.  0.0000	
## MSE: Mean So ## MAE: Mean Al ## ## ## ## ## ## ## ## ## Regression ## Residual ## Total ##	quare Error bsolute Error  Sum of Squares  11274918542.615 7094705844.586 18369624387.195	6 6 8 8 8 8 8	DF Mean 9 1252766 60 8249 69	n Square 	F 151.857	Sig.  0.0000	

				F26 F00				927.6
#	(Intercept)	1980.856		536.599		3.692	0.000	927.0
034.052 #	Attrition	247.013		276 207	0.020	0.894	0.372	205.2
+ 39.290	ACCUICTON	247.013		276.287	0.020	0.894	0.372	-295.2
	sinessTravel	-160.177		184.289	-0.019	-0.869	0.385	-521.8
01.532								
#	HourlyRate	-4.841		4.868	-0.021	-0.994	0.320	-14.3
.714 # Joh	Satisfaction	01 620		90 096	0 022	1 020	0.204	266.4
# Job 3.213	Satisfaction	-91.639		89.086	-0.022	-1.029	0.304	-266.4
	paniesWorked	-109.310		44.195	-0.060	-2.473	0.014	-196.0
22.567								
	WorkingYears	497.783		19.265	0.813	25.839	0.000	459.9
35.594		24 004		22 074	0.046	1 064	0 207	20. 5
# Ye 9.500	arsAtCompany	34.984		32.871	0.046	1.064	0.287	-29.5
	astPromotion	-65.164		40.379	-0.045	-1.614	0.107	-144.4
4.089						•		
	hCurrManager	-88.397		42.613	-0.069	-2.074	0.038	-172.0
4.759								
 # # # - BusinessT #	ravel							
# # - BusinessT # # Backward El #	imination: St	•						
# # - BusinessT # # Backward El # # Variable B #		Removed						
# # - BusinessT # # Backward El # # Variable B #	imination: St	•	mmary					
# # - BusinessT # # Backward El # # Variable B # #	imination: St usinessTravel	Removed	mmary  RMSE		2871	 .814		
# # - BusinessT # # Backward El # # Variable B # # # # # #	imination: St	Model Sur  0.783 0.613	RMSE Coef.		44	.940		
# - BusinessT # Backward El # Variable B # * Table B # * Table B # * Table B # * Table B	imination: St usinessTravel	Model Sur  0.783 0.613 0.610	RMSE Coef. MSE		44 8247314	.940 .732		
# - BusinessT # Backward El # Variable B #  # R # R-Squared # Adj. R-Squa	imination: St usinessTravel red red	Model Sur  0.783 0.613 0.610 0.602	RMSE Coef. MSE MAE		44 8247314 2129	.940 .732 .561		
# - BusinessT # Backward El # Variable B # * # R-Squared # Adj. R-Squa # Pred R-Squa	imination: St usinessTravel red red	Model Sur 	RMSE Coef. MSE MAE		44 8247314 2129	.940 .732 .561		
# # - BusinessT # # Backward El # # Variable B # # R # R-Squared # Adj. R-Squa # Pred R-Squa #	imination: St usinessTravel red red Mean Square	Model Sur 	RMSE Coef. MSE MAE		44 8247314 2129	.940 .732 .561		
# - BusinessT # # Backward El # # Variable B # # R # R-Squared # Adj. R-Squa # Pred R-Squa # # RMSE: Root # MSE: Mean	imination: St usinessTravel red red Mean Square	Model Sur 	RMSE Coef. MSE MAE		44 8247314 2129	.940 .732 .561		
# - BusinessT # Backward El # Variable B #  # Compared # R-Squared # Adj. R-Squa # Pred R-Squa # # RMSE: Root # MSE: Mean # MAE: Mean	imination: St usinessTravel red red Mean Square Square Error	Model Sur 	RMSE Coef. MSE MAE		44 8247314 2129	.940 .732 .561		
# - BusinessT # Backward El # Variable B # # Variable B # # R-Squared # Adj. R-Squa # Pred R-Squa # # RMSE: Root # MSE: Mean # MAE: Mean	imination: St usinessTravel  red red Mean Square Square Error Absolute Erro	Model Sur 	RMSE Coef. MSE MAE		44 8247314 2129	.940 .732 .561		
# - BusinessT # Backward El # Variable B #  # Compared # R-Squared # Pred R-Squa # Pred R-Squa # RMSE: Root # MSE: Mean # MAE: Mean # #	imination: St usinessTravel  red red Mean Square Square Error Absolute Erro	Model Sum 0.783 0.613 0.610 0.602 Error	RMSE Coef. MSE MAE		44 8247314 2129	.940 .732 .561		
# - BusinessT # Backward El # Variable B # Variable B # Formula Business B # Formula Busines B # Formula B # Formu	imination: St usinessTravel  red red Mean Square Square Error Absolute Erro	Model Sum 0.783 0.613 0.610 0.602 Error r	RMSE Coef. MSE MAE	A 	44 8247314 2129	.940 .732 .561 	Sig.	
# - BusinessT # Backward El # Variable B # Variable B # Formula in the second in the s	imination: St usinessTravel  red red Mean Square Square Error Absolute Erro  S Sq	Model Sum 0.783 0.613 0.610 0.602 Error r um of uares	ANOVA	N Mean	44 8247314 2129	.940 .732 .561 	Sig.	
# - BusinessT # # Backward El # # Variable B # # # R-Squared # Pred R-Squa # # RMSE: Root # MSE: Mean # MAE: Mean # # # # Regression	imination: St usinessTravel  red red Mean Square Square Error Absolute Erro	Model Sur 0.783 0.613 0.610 0.602 Error r um of uares 2.899	ANOVA	Mean 	44 8247314 2129 	.940 .732 .561 	Sig.	

\_\_\_\_\_

## ++					r Estimates			
f# ·								
##	model	Beta	Sto	l. Error	Std. Beta	a t	Sig	lowe
pper								
:# 								
:#	(Intercept)	1819.120		503.229		3.61	5 0.000	831.42
806.819								
#	Attrition	269.977		274.982	0.022	0.98	2 0.326	-269.73
809.691								
<b>#</b> #	HourlyRate	-4.990		4.865	-0.022	-1.02	6 0.305	-14.53
1.558								
<b>#</b> #	JobSatisfaction	-97.601		88.809	-0.024	-1.09	9 0.272	-271.90
76.708		407 770		44 454	0.050	2 44	1 0 015	104.44
	NumCompaniesWorked	-107.779		44.154	-0.059	-2.44	1 0.015	-194.44
-21.117	TotalWorkingVoons	407 075		10 245	ρ 01 <sup>-</sup>	י אר פא	0 0 000	450.20
## 534.846	TotalWorkingYears	497.0/5		19.245	0.812	25.82	9 0.000	459.30
	YearsAtCompany	35.350		32.863	0.046	5 1.07	6 0.282	-29.15
99.851	rear saccompany	33.330		32.003	0.040	1.07	0 0.202	-20,10
	SinceLastPromotion	-65.885		40.365	-0.046	5 -1.63	2 0.103	-145.11
3.340								
# Yea	arsWithCurrManager	-88.620		42.606	-0.069	-2.08	0.038	-172.24
4.995	Ü							
<b>#</b> #	ard Elimination: Stable Attrition Remo							
##								
<b>#</b> #		Model Sur	nmary					
			DMCF		2074			
⊧# R ⊧# R-Squa		0.783 0.613		Var	2871	1.754 1.940		
-	R-Squared				8246969			
•	•	0.603				5.199		
	·							
	: Root Mean Square	Error						
## MSE:	Mean Square Error Mean Absolute Erro	r						
## MSE: ## MAE: ##		r	ANGLE					
## MSE: ## MAE: ##	Mean Absolute Erro		ANOVA					
## MSE: ## MAE: ## ##	Mean Absolute Erro							
## MSE: ## MAE: ## ##	Mean Absolute Erro						 Sig.	

	24387.195	869	46969.605			
# #						
# #			ter Estimates			
	del Beta	Std. Error	Std. Beta	t	Sig	lower
ıpper :#						
# (Interce !920.681	pt) 2008.158	464.928		4.319	0.000	1095.635
# HourlyR	ate -5.143	4.862	-0.023	-1.058	0.290	-14.686
.399						
# JobSatisfact	ion -88.224	88.293	-0.021	-0.999	0.318	-261.518
85.069		42.040	0.063	2 550	0.011	100 504
# NumCompaniesWor 26.141	ked -112.324	43.910	-0.062	-2.558	0.011	-198.506
# TotalWorkingYe	ars 500.226	18.975	0.817	26.363	0.000	462.985
337.468						
# YearsAtComp	any 34.430	32.849	0.045	1.048	0.295	-30.043
8.904 # YearsSinceLastPromot	ion -70.270	40.116	-0.049	-1.752	0.080	-149.007
467	-70.270	40.110	-0.043	-1,752	0.000	-140.007
# YearsWithCurrMana	ger -84.845	42.432	-0.066	-2.000	0.046	-168.126
1.564						
##						
· ##						
;;; !#						
# - JobSatisfaction						
##						
## Backward Elimination	: Step 15					
∺ # Variable JobSatisfa	ction Removed					
##	CCION Nemoved					
##	Model Su	mmary				
##						
## R		RMSE	2871.			
## R-Squared		Coef. Var MSE	44.9			
## Adj. R-Squared ## Pred R-Squared		MAE	8246954.7 2127.2			
##						
## RMSE: Root Mean Squ	are Error					
## MSE: Mean Square Er						
## MAE: Mean Absolute	Error					
## ##		ANOVA				
<del>'"</del> !#						
;;; !#	Sum of					

## Residual ## Total ##	7117121979 18369624387	.195	863 824 869				
## ##				er Estimates			
#							
: !#	model	Pota	Std. Error	Std Rota	+	Sia	lower
m Ipper	model	реса	Stu. El l'Ol	Stu. Beta	L	21g	Tower
#							
<b>!</b> # (1	Intercept)	1733.129	374.698		4.625	0.000	997.702
468.555							
	HourlyRate	-4.725	4.844	-0.021	-0.975	0.330	-14.232
.782							
·	niesWorked	-110.683	43.879	-0.061	-2.522	0.012	-196.805
24.561		F01 303	10.044	0.010	26 462	0.000	464 123
# TotalWo 538.485	rkingYears	501.303	18.944	0.819	26.462	0.000	464.122
	sAtCompany	32.092	32.766	0 042	0.979	0.328	-32.218
96.402	3Accompany	32.032	32.700	0.042	0.575	0.320	- 32,210
# YearsSinceLas	tPromotion	-68.429	40.074	-0.047	-1.708	0.088	-147.082
.0.225							
## YearsWithC	urrManager	-83.764	42.418	-0.065	-1.975	0.049	-167.019
0.510							
#							
!# 							
## ## - HourlyRate							
## - HourlyNace ##							
# Backward Elim	ination: Ste	p 16					
<del>!</del> #							
## Variable Hou	rlyRate Remo	ved					
<del>!</del> #		Madal Cum					
!# !#		Model Sum	•				
## R			RMSE	2871	670		
# R-Squared	_	-	Coef. Var		.938		
## Adj. R-Square			MSE	8246491			
# Pred R-Square	d 0	.604	MAE	2126			
#							
## RMSE: Root M	•	rror					
# MSE: Mean Sq							
## MAE: Mean Ab	solute Error						
<del>!</del> #			41101/3				
<del>!</del> #			ANOVA				
:# :#	C++	m of					

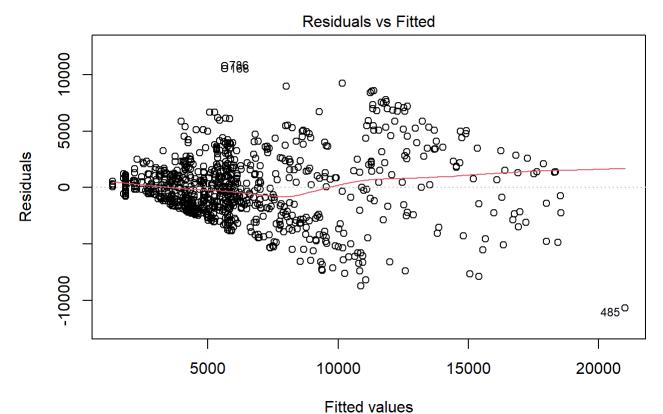
# Regression					10.627	272.714	0.0000	
# Residual			864	824649	91.127			
	18369624387							
# 								
#			Day	namatan	Estimates			
<del>"</del> #								
π								
#	model	Beta	Std. E	rror	Std. Beta	t	Sig	lowe
pper							J	
#								
# (	Intercept)	1426.063	203	. 206		7.018	0.000	1027.22
824.898								
•	niesWorked	-110.533	43	.877	-0.061	-2.519	9 0.012	-196.65
24.414		F00 (F0	10	022	0.010	26 441	- 0.000	462 50
# TotalWo 37.816	orkingYears	500.658	18	.932	0.818	26.445	0.000	463.50
	sAtCompany	32.679	32	.759	0 043	0.998	3 0.319	-31.618
6.976	SACCOMPANY	32.073	32	,,,,,	0.043	0.550	0.515	31.01
# YearsSinceLas	tPromotion	-68.751	40	.071	-0.048	-1.716	6 0.087	-147.399
.898								
# YearsWith(	CurrManager	-83.670	42	.416	-0.065	-1.973	0.049	-166.92
0.418								
#								
#								
#	2014							
# - YearsAtComp #	ally							
π # Backward Elin	ination: Ste	n 17						
#	.1	γ = /						
	rsAtCompany	Removed						
#								
#		Model Sun						
#								
# R			RMSE		2871			
# R-Squared			Coef. Var			.938		
# Adj. R-Square			MSE		8246444			
# Pred R-Square #		.605			2130	.712		
# # RMSE: Root N								
# MSE: Mean So		1101						
# MAE: Mean At								
#								
#			ANOVA					
#								
#	Su	m of						
#	Squ	ares	DF	Mean S	Square	F	Sig.	
 #								

## Total 1836		865 869	8246	444.345			
:# :#							
#				r Estimates			
#							
· ##	model B	ata St	d Error	Std. Beta	+	Sig	lowe
ipper	model b	cta st	u. Error	Jea. Deca	C	216	TOWC
 ##							
## (Inter L844.086	rcept) 1447.	486	202.068		7.163	0.000	1050.88
## NumCompanies	worked -123.	154	42.014	-0.068	-2.931	0.003	-205.61
-40.693							
## TotalWorking	gYears 510.	087	16.403	0.834	31.097	0.000	477.89
542.282	_						
## YearsSinceLastProm L9.102	motion -53.	980	37.235	-0.037	-1.450	0.148	-127.06
19.102 ## YearsWithCurrMa	anager -58.	488	34.087	-0.045	-1.716	0.087	-125.39
3.415	anage.	.00	311007	0.013	21,720	0.007	123.33
# # Backward Eliminati							
## ## Backward Eliminati ## ## Variable YearsSir	ion: Step 18	n Removed					
## ## Backward Eliminati ## ## Variable YearsSir ##	ion: Step 18 nceLastPromotio Model	Summary					
## ## Backward Eliminati ## ## Variable YearsSir ## ##	ion: Step 18 nceLastPromotio Model	Summary		 2873	 .488		
## ## Backward Eliminati ## ## Variable YearsSir ## ## ## ## ## R ## R-Squared	ion: Step 18  nceLastPromotio  Model  0.782 0.611	Summary  RMSE Coef.	 Var				
## ## Backward Eliminati ## ## Variable YearsSir ## ## ## ## ## ## R ## R-Squared ## Adj. R-Squared	ion: Step 18  nceLastPromotio  Model  0.782  0.611  0.609	Summary  RMSE Coef. MSE	 Var	2873 44 8256934	.967 .849		
## ## Backward Eliminati ## ## Variable YearsSir ## ## ## ## ## ## R ## R-Squared ## Adj. R-Squared	ion: Step 18  nceLastPromotio  Model  0.782 0.611 0.609 0.606	Summary RMSE Coef. MSE MAE	Var	2873 44 8256934 2129	.967 .849 .423		
## ## Backward Eliminati ## ## Variable YearsSir ## ## ## ## ## R-Squared ## Adj. R-Squared ## Pred R-Squared	ion: Step 18  nceLastPromotio  Model  0.782  0.611  0.609  0.606	Summary RMSE Coef. MSE MAE	Var	2873 44 8256934 2129	.967 .849 .423		
## ## Backward Eliminati ## ## Variable YearsSir ## ## ## ## ## ## R-Squared ## Adj. R-Squared ## Pred R-Squared ## ## RMSE: Root Mean S	ion: Step 18  nceLastPromotio  Model  0.782  0.611  0.609  0.606	Summary RMSE Coef. MSE MAE	Var	2873 44 8256934 2129	.967 .849 .423		
## ## ## ## ## R ## R-Squared ## Adj. R-Squared ## Pred R-Squared ## ## RMSE: Root Mean S ## MSE: Mean Absolut	ion: Step 18  nceLastPromotio  Model  0.782  0.611  0.609  0.606  Square Error  Error	Summary RMSE Coef. MSE MAE	Var	2873 44 8256934 2129	.967 .849 .423		
## ## Backward Eliminati ## ## Variable YearsSir ## ## ## ## R ## R-Squared ## Adj. R-Squared ## Pred R-Squared ## Pred R-Squared ## MSE: Root Mean S ## MSE: Mean Square ## MAE: Mean Absolut	ion: Step 18  nceLastPromotio  Model  0.782  0.611  0.609  0.606  Square Error  Error	Summary RMSE Coef. MSE MAE		2873 44 8256934 2129	.967 .849 .423		
## ## Backward Eliminati ## ## Variable YearsSir ## ## ## ## R ## R-Squared ## Adj. R-Squared ## Pred R-Squared ## Pred R-Squared ## MSE: Root Mean S ## MSE: Mean Square ## MAE: Mean Absolut ##	ion: Step 18  nceLastPromotio  Model  0.782 0.611 0.609 0.606  Square Error Error te Error	Summary RMSE Coef. MSE MAE		2873 44 8256934 2129	.967 .849 .423		
## ## Backward Eliminati ## ## Variable YearsSir ## ## ## ## R ## R-Squared ## Adj. R-Squared ## Pred R-Squared ## Pred R-Squared ## MSE: Root Mean S ## MSE: Mean Square ## MAE: Mean Absolut ##	ion: Step 18  nceLastPromotio  Model  0.782  0.611  0.609  0.606  Square Error  Error	Summary RMSE Coef. MSE MAE		2873 44 8256934 2129	.967 .849 .423		
## Backward Eliminati ## Variable YearsSir ## ## Variable YearsSir ## ## R-Squared ## R-Squared ## Pred R-Squared ## ## RMSE: Root Mean S ## MSE: Mean Square ## MAE: Mean Absolut ##	ion: Step 18  nceLastPromotio  Model  0.782 0.611 0.609 0.606  Square Error Error te Error	Summary RMSE Coef. MSE MAE	Var	2873 44 8256934 2129	.967 .849 .423	 Sig.	
## Backward Eliminati ## Variable YearsSir ## ## Variable YearsSir ## ## R-Squared ## R-Squared ## Pred R-Squared ## ## RMSE: Root Mean S ## MSE: Mean Square ## MAE: Mean Absolut ## ## ##	ion: Step 18  nceLastPromotio  Model  0.782 0.611 0.609 0.606  Square Error Error te Error  Sum of Squares	Summary RMSE Coef. MSE MAE	Var  A  Mean	2873 44 8256934 2129	.967 .849 .423 		
## Backward Eliminati ## Variable YearsSir ## ## ## R-Squared ## Adj. R-Squared ## Pred R-Squared ## Pred R-Squared ## AMSE: Root Mean S ## MAE: Mean Absolut ## ## ## ## ##	ion: Step 18  nceLastPromotio  Model  0.782 0.611 0.609 0.606  Square Error Error te Error  Sum of Squares	Summary  RMSE Coef. MSE MAE  ANOV  DF	Var  A Mean 3739706	2873 44 8256934 2129 	.967 .849 .423 		
## Backward Eliminati ## Variable YearsSir ## ## ## R-Squared ## Adj. R-Squared ## Pred R-Squared ## Pred R-Squared ## MSE: Mean Square ## MAE: Mean Absolut ## ## ##	ion: Step 18  nceLastPromotio	Summary  RMSE Coef. MSE MAE  ANOV  DF  3 866	Var  A Mean 3739706	2873 44 8256934 2129 	.967 .849 .423 		

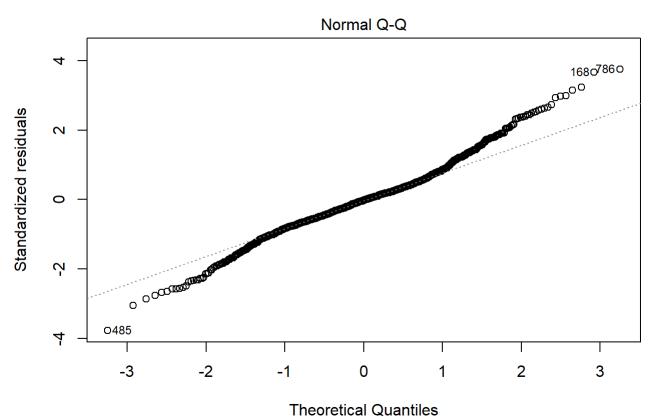
```
##
                                     Parameter Estimates
                                                                         lower
##
               model
                         Beta Std. Error Std. Beta t
                                                                Sig
upper
## -----
##
                      1459.122
                                                        7.222
                                                               0.000
                                                                       1062.583
          (Intercept)
                                   202.037
1855.661
    NumCompaniesWorked
                      -115.764
                                   41.730
                                           -0.063
                                                       -2.774
                                                               0.006
                                                                       -197.667
-33.860
##
                                               0.822
                                                       32.119
    TotalWorkingYears
                       502.960
                                    15.659
                                                               0.000
                                                                        472.226
533.694
## YearsWithCurrManager
                       -75.420
                                    32.044
                                               -0.059
                                                     -2.354
                                                               0.019
                                                                       -138.313
-12.526
## -----
##
##
##
## No more variables satisfy the condition of p value = 0.05
##
##
## Variables Removed:
##
## - PercentSalaryHike
## - EnvironmentSatisfaction
## - DailyRate
## - StockOptionLevel
## - WorkLifeBalance
## - YearsInCurrentRole
## - JobInvolvement
## - PerformanceRating
## - DistanceFromHome
## - TrainingTimesLastYear
## - RelationshipSatisfaction
## - MonthlyRate
## - BusinessTravel
## - Attrition
## - JobSatisfaction
## - HourlyRate
## - YearsAtCompany
## - YearsSinceLastPromotion
##
##
## Final Model Output
##
  -----
##
##
                         Model Summary
##
                      0.782
                                RMSE
## R
                                                   2873.488
## R-Squared
                      0.611
                                Coef. Var
                                                    44.967
```

## Adj. R-Squar	ed	0.609	MSE	82569	34.849		
## Pred R-Squar			MAE		29.423		
## RMSE: Root I ## MSE: Mean So	•						
## MAE: Mean Al							
##							
##			ANOVA				
##							
##		Sum of					
<b>!#</b> <b>:</b> #				Mean Square			
				 3739706269.397			
## Residual							
		387.195					
##							
##							
<b>##</b>				rameter Estimate 			
<b>#</b> #	model	Beta	Std. Err	or Std. Beta	t	Sig	lower
ıpper						_	
#							
## (In	tercept)	1459.122	202.0	37	7.222	0.000	1062.583
l855.661 ## NumCompanio	achlankad	115 76/	11 7	30 -0.063	-2.774	0 006	-197.667
-33.860	ESWOLKEU	-113./04	41./	-0.003	-2.//4	0.000	-13/.00/
	ingYears	502.960	15.6	59 0.822	32.119	0.000	472.226
533.694	Ü						
## YearsWithCur	rManager	-75.420	32.0	-0.059	-2.354	0.019	-138.313
12.526							
##							

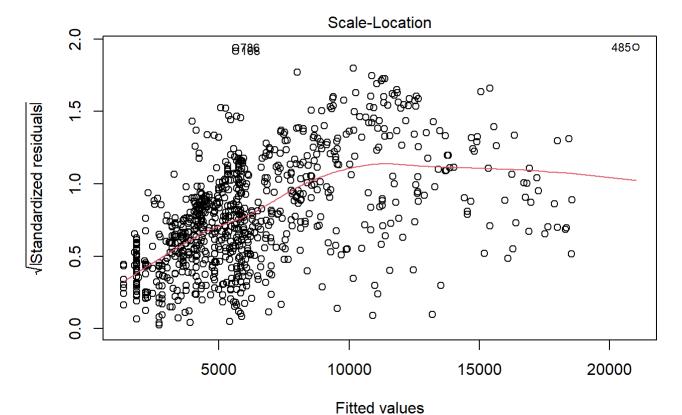
##				on Summary			
## -							
## ##	Step	Variable Removed	R-Square	Adj. R-Square	C(p)	AIC	RMSE
##							
## 4	1	PercentSalaryHike	0.615	0.606	20.0271	16355.4217	2886.092
## 4	2	EnvironmentSatisfaction	0.615	0.6064	18.0637	16353.4592	2884.456
## 6	3	DailyRate	0.615	0.6068	16.1569	16351.5548	2882.919
## 1	4	StockOptionLevel	0.6149	0.6072	14.2628	16349.6635	2881.407
- ## 6	5	WorkLifeBalance	0.6149	0.6077	12.3671	16347.7704	2879.894
##	6	YearsInCurrentRole	0.6148	0.608	10.5488	16345.9567	2878.516
## 6	7	JobInvolvement	0.6147	0.6084	8.7884	16344.2024	2877.238
## 5	8	PerformanceRating	0.6146	0.6087	7.0441	16342.4644	2875.990
## 8	9	DistanceFromHome	0.6144	0.609	5.3978	16340.8268	2874.910
## 0	10	TrainingTimesLastYear	0.6142	0.6093	3.7521	16339.1896	2873.834
## 9	11	RelationshipSatisfaction	0.6141	0.6096	2.1279	16337.5743	2872.795
## 8	12	MonthlyRate	0.6138	0.6097	0.7775	16336.2387	2872.221
##	13	BusinessTravel	0.6134	0.6098	-0.4752	16335.0026	2871.813
##	14	Attrition	0.613	0.6099	-1.5219	16333.9761	2871.753
## 2	15	JobSatisfaction	0.6126	0.6099	-2.5345	16332.9832	2871.751
4 ##	16	HourlyRate	0.6121	0.6099	-3.5936	16331.9418	2871.670
## 3	17	YearsAtCompany	0.6117	0.6099	-4.6095	16330.9433	2871.662
## 3	18	YearsSinceLastPromotion	0.6107	0.6094	-4.5312	16331.0545	2873.488
##							



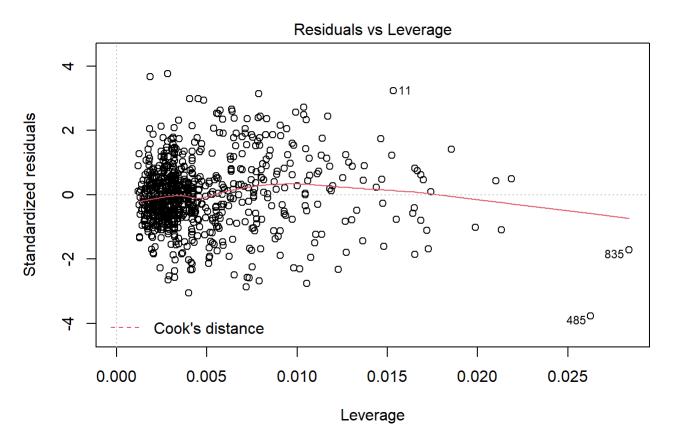
Im(MonthlyIncome ~ NumCompaniesWorked + TotalWorkingYears + YearsWithCurrMa ...



Im(MonthlyIncome ~ NumCompaniesWorked + TotalWorkingYears + YearsWithCurrMa ...



Im(MonthlyIncome ~ NumCompaniesWorked + TotalWorkingYears + YearsWithCurrMa ...



 $Im (MonthlyIncome \sim Num Companies Worked + Total Working Years + Years With Curr Ma \dots \\$ 

```
## # A tibble: 6 x 2
        ID ModeledSalary
##
     <dbl>
                   <dbl>
##
       871
                   4336.
## 1
## 2
       872
                   3476.
## 3
       873
                  12232.
## 4
       874
                   3707.
## 5
       875
                   4336.
## 6
       876
                  10668.
## # A tibble: 3 x 2
##
     Department
                                n
##
     <chr>>
                            <int>
## 1 Human Resources
                               35
## 2 Research & Development
                              562
## 3 Sales
                              273
## Warning: package 'hrbrthemes' was built under R version 4.1.2
## NOTE: Either Arial Narrow or Roboto Condensed fonts are required to use these themes.
##
         Please use hrbrthemes::import_roboto_condensed() to install Roboto Condensed and
         if Arial Narrow is not on your system, please see https://bit.ly/arialnarrow
##
## Warning in grid.Call(C_stringMetric, as.graphicsAnnot(x$label)): font family not
## found in Windows font database
## Warning in grid.Call(C_stringMetric, as.graphicsAnnot(x$label)): font family not
## found in Windows font database
## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database
## Warning in grid.Call(C stringMetric, as.graphicsAnnot(x$label)): font family not
## found in Windows font database
```

```
## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database

## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database

## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database

## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database

## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database

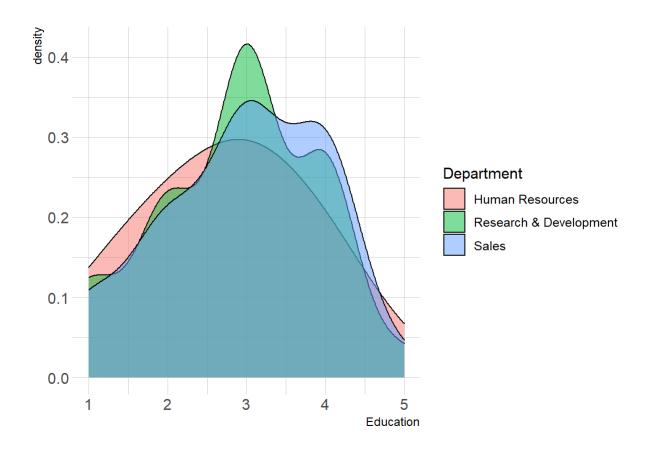
## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database

## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database
```

```
## Warning in grid.Call.graphics(C_text, as.graphicsAnnot(x$label), x$x, x$y, :
## font family not found in Windows font database
```

```
## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database

## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database
```



```
## # A tibble: 9 x 2
     JobRole
##
                                    n
##
     <chr>>
                                <int>
## 1 Healthcare Representative
                                  76
## 2 Human Resources
                                   27
## 3 Laboratory Technician
                                 153
## 4 Manager
                                  51
## 5 Manufacturing Director
                                  87
## 6 Research Director
                                   51
## 7 Research Scientist
                                 172
## 8 Sales Executive
                                 200
## 9 Sales Representative
                                   53
```

```
## Warning: package 'ggridges' was built under R version 4.1.2
```

```
## Warning: package 'viridis' was built under R version 4.1.2
```

```
## Loading required package: viridisLite
```

```
## Picking joint bandwidth of 671
```

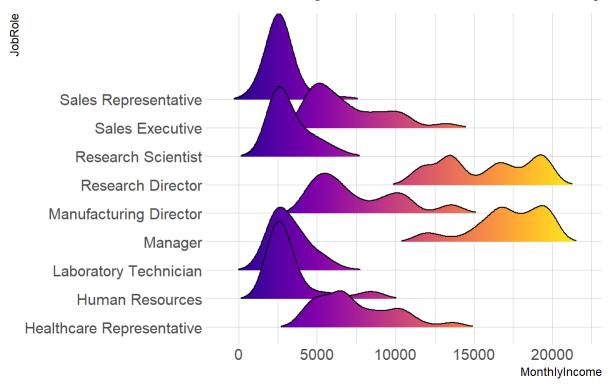
## Warning in grid.Call(C\_stringMetric, as.graphicsAnnot(x\$label)): font family not
## found in Windows font database

```
## Warning in grid.Call(C textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database
## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database
## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database
## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database
## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database
## Warning in grid.Call(C textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database
## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database
## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database
## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database
## Warning in grid.Call(C_textBounds, as.graphicsAnnot(x$label), x$x, x$y, : font
## family not found in Windows font database
```

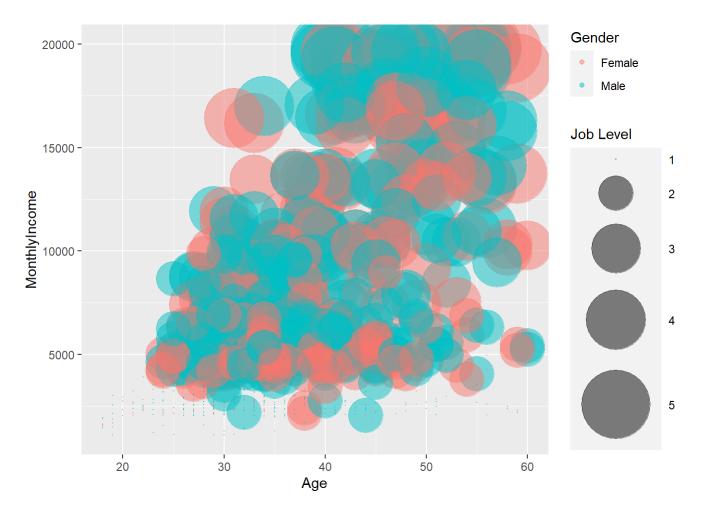
```
## Warning in grid.Call.graphics(C_text, as.graphicsAnnot(x$label), x$x, x$y, :
## font family not found in Windows font database
```

```
## Warning in grid.Call(C_{textBounds}, as.graphicsAnnot(x), x, x, x, x, if ont ## family not found in Windows font database
```

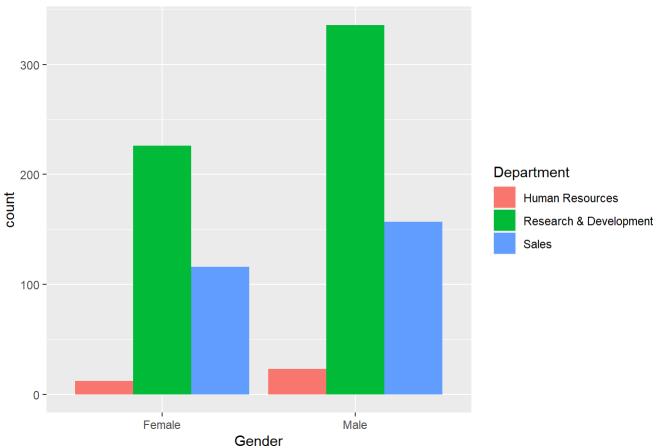
## **The Salary Distribution Of each repres**



```
## # A tibble: 5 x 2
     JobLevel
##
##
        <dbl> <int>
            1
                329
## 1
## 2
            2
                 312
## 3
            3
                 132
## 4
            4
                 60
## 5
            5
                  37
```



## Department Population by Gender



## Correlation Between Gender and Job Level As Applies To Job Involvement

