YARN monages Application カニナ・ナルフとから 7/07/2023 MARIN Rprogramming Statistical Meatures 1000 > Descriptive interential 1. antral tendancy or moments (es. man, made, 2. Measures of positions - quantites tractions " Distribution -> skewners and knetobis " Dispersion (spread) > variance, std demation, Co Variance, corelation > Interential · Probability es: population, cample -> P-text >t-tert >z-test schi-Square tert

\* installing packages in R 1.021:11 21 6 8 install packages ("moments") library (moments) . 2211/21/21 ... (600) Mostor Cont. > 10= (4,1,8,9,10) 7 min (x) = 1 201 3 201 3 Std.dell => =  $\sqrt{\epsilon(x-x)^{v}}$ > man(x) Var = 6 = E (x-81) > SOV (x) > Yange (x) population = /n > YOU(X) Sample => /n-1 > 89 (x) > cov (x, y) Cardip. Cho. - in-> cor (x, y) CHARLES Entropy > Skewners (n) Exide In In. > Kuitori's (a) ( & = s. tol > mean (x) and all in >> > median(x) The war and it is given soon as the contraction of => mode has no predefined function in'R' > quantile (x, probs = 0.19) Quantite - frontionper a= mantile (n, probs = 0.25) - questile quantile (x, probs = 0.50) -median 93 = Mantile (71, probs = 0.75) -> quartile >10R (93-Q1) a remotive with worth many > data() lidisplay all predefined datasets > data (iris) // iris dataset > str (iris) / gives attributes > Summary (iris) //gives summary

Mentire dataset > 8713 [1:150,] 11.00 rows was syramy. Illing 7 2215[1:10,] 11 displays only 4 columns > 8/15(1:150, -5) 11 removes last two col, > 8513 [1:150, (-4,-5)] / more than one value that give in vector ) warm CXIMAII of v or a companie Programo (x) 99 VIVE 1. Linear Reguession N/901 17 2/14/5 >x=c(1,2,3,4) >y=c(2,4,6,8) > &= data flame (a, y) ( C/5) 24 2001031/28 1 linear model is predebised func > lr= lm (ynx), data=3) amultiple = Um (yn(4+x) >print (lr) agives funnary (x) Mollowy data=) > new = data frame (x=5) > P= predict (lr, new) e sure tile (m. par bas = cos) > print (p) who we come (or o) strangers strangers THE CONTROL (STORES OF STORES OF THE STORES 2 multiple Regression (12)-88, 92010 state () will buy the property with the A mount in ( Ciris of the Maria Maria Calaba

recursive partition regression trees > Prostall. packages (rpart) > library ( r class) > library ( rpart. plot) > x = &ris [1:140,] > y = 2 ris [141:150, ] >dtm = rpart (species n (depal·length + depal, width + petal. length if petal. width) data = x, method-"class" dtn = rpart (Specces N.) data = x, method = "clars") > plot (dtm) > text (dtm) 11 gives funnary based on branch > P= predict (dtm, y[,-5], type = "class") >table (y (15), P) · Randomfourt: 2 terative of multiple DTM'S

(DTIM)

3. Decision Tree Model

14/07 Scala ⇒ <u>Scalable Language</u> Hadoop Hadoop Hadoop 1.0 2.0 41948 4445 MapReduce MapReduce MapReduce Walliam . Spark -> load balancing YARN modules developed by Modules developed by. R/Python 1) Couth I tola Scala programs want rule (mth) syntar object ma Hick (dtm, 415-5) Hupe det main (asgs: Array [String]) (4. [70], 1.) 3 Milosoft : 1x325 Midon def fic)

Val: value which is constant Vos: variable which is not-fixed Val x: Int =95; -> Emmutable fyntax: Var x: Ent = 100; -> nuitable (Side of Arraly (Sides); -> object declaration dyntax: Var obj = new classname(); : (13-800,10) gunos/(12) [ +/10] Writh: Fuer object mca det main (args: Array [String]) val x: 2nt =50 ; ((1500) 7/1/0) Vas 1: Double = 49.99 Vas 3: String = "Ram"; 3 Print (x+" "+ y+" ("+3); \* Reading up directly from keyboard var x: Ent = Scala (co. Std In read Line to Int; Val y: String = Scala. io. StdIn. read Line; Object pendedu det main (args: Array (String)) Var 2: Double = Scala. io, Std 20. read Line. to Double; & Print(8);

\* Static Single dimensional array Object areykonshik fer . gar. so lay det main (args: Array [String]) Var y = Array (3,4,5,8,6); Var y = Array (Array (1,2,3,4), Array (4,3,2,1)); // var x: Array [2nt] = Ackay (1,2,3,4); preirate -for (1←0+04) grabje ni specej gra 62 - Anton 600 p print (xci); of a wind it on't I hido by sex 18 (1← o to 1) 18 (3 4 0 to 4) 1 , 1) mili Fried Print (Scincis) eston of esty of the grands again (Grand) francis promis rooms a  $\mathbf{g} \in \mathbb{R} \times \mathbb{R}^{d}$  if  $\mathbf{h} \in \mathcal{G}_{\mathbf{k}}$  and  $\mathbf{h} \in \mathbb{R}^{d}$  . The  $\mathbf{h} \in \mathbb{R}^{d}$ 

\* Dynamic Single D & Two D array object nasownemasta det main (asgs: Array [string]) þ van a = Array [2nt] (5) file: 10 cont fo((+ 0 to 4) x(i) = Scala io. Std1n. read line sto Int; : (Wor) bb b. j. 19 (North Jour july for (1←0 to4) printh(xci); Var y = Array. of Dim [2nt] (2,5); for (it o to i) (facing where it) this it þ fo (3←0 to 4) Y(i)(i) = Scala·io. Std2n. read Line. to2nt; E for (ito tol) fos (i←o to 1) d +68 (j←0 to 4) ie o tou) print (y(i)(i)) Println (y(i)(i)); ي ع

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· RDD; Re-silent Distributed patabases
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· Re-silent => fault-tolerance
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> BASE properties
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