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(A Unit of Shri Sode Vadiraja Mutt Education Trust®, Udupi)

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Vishwothama Nagar, Bantakal - 574115, Udupi District, Karnataka.

SMVITM

Activity Request form

Academic Year	2021-22		
Department/Section/ Committee/Cell	Department of CSE Engineering		
Name of the Activity	Value added course on R Programming		
Target Audience	5th semester CSE students		
Activity Date(s)	23/10/2021 to 12/02/2022	Time	1:55 to 4:45 PM
Venue	CC3 lab, 3rd floor, CSE Department, Admin block		
Resource Person	Ms. Rukmini Bhat B, Ms. Sneha N S, Ms. Deepthi G Pai, Department of CSE		

Expected expenditure		
S. No.	Description	Amount
	Nil	Nil
Total		Nil

(Add rows if required)

Source of fund (Sponsorship/Regi7sstration fee)		
S. No.	Description	Amount
	Nil	Nil
Total		Nil

(Add rows if required)

Financial support required from the Institute	Nil

Name of the Department ISTE Coordinator	**Signature with date**
Nagaraj Bhat **Name of the HoD**	**Signature with date**

Principal
SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY & MANAGEMENT
Vishwothama Nagar, Udupi Dist.
BANTAKAL - 574 115

Dept. of Comp. Science & Engg.
SMVITM, BANTAKAL-574 115

Remarks by IQAC

May be conducted

Signature 21/10/22

Remarks by Principal

Permitted

Signature

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Vishwothamanagar, Bantakal - 574 115, Udupi, Karnataka, India
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SMVITM

Dr. Nagaraj Bhat
Associate Professor and Head

Ref.No: SMVITM/CS/2022/ 03

18th October,2022

CIRCULAR

Dear Students,

To boost the Outcome based Education (OBE) process, enhance the teaching-learning process and to bridge the curriculum gap, Dept. of CSE is offering Value Added Course on "R Programming" for the 5th semester students. This course is scheduled from 23/10/2021 to 12/02/2022 for 30 hours duration. We believe this course will help you to upgrade your skills and it will further helpful for your academics.

HOD CS

Head
Dept. of Comp.Science & Engg
SMVITM, BANTAKAL-574 115

Dr. Nagaraj Bhat

Copy to:

1. Principal
2. Vice Principal / Trust – For information

Tel: +91 9611615001 | Ext: 213 | Web: https://sode-edu.in/departments/computer-science-engineering/ | E-mail: cs@sode-edu.in

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ACTIVITY REPORT

Academic Year	2021-22
Name of activity	Value added course on R PRogramming
Resource Speakers	Ms. Rukmini Bhat B , Ms.Sneha N S, Ms. Deepthi G Pai, Assistant Professors, Dept. of CSE
Date	23/10/2021 to 12/02/2022
Time	1.55 pm to 4.45 on Saturday or Tuesday
Venue	CC-III 2nd Floor, Admin Block
Target Audience	5th sem CSE Students
No. of participants	31
Outcome of the event	Useful for students to work with data analytics by understanding the Basics needed for R Programming

Department of Computer Science and Engineering, Shri Madhwa Vadiraja Institute of Technology & Management (SMVITM), Bantakal organized 40 days value Added course on "R Programming" which began on 23rd October 2021 and ended on 12th Feb 2022. Ms. Rukmini Bhat B, Ms.Sneha N S , Assistant Professors (Sr.) , Ms. Deepthi G Pai, Assistant Professors, Dept. of CSE handled the course. Dr. Thirumaleshwar Bhat, Principal, SMVITM gave the inaugural address. He spoke about the significance of the value added courses in students professional life and gave insights on the importance of the R Programming for working with Data AnalyticsThe course covered the entire basics of R Programming consisting of operators, data types, input output, control statements, Functions. The course ended with a hands-on assessment on the topics that were taught during the course. The registrations were handled by Ms.Deepthi G. Pai. Assessment evaluation was handled by Rukmini Bhat B. Feedback and certificates distribution were handled by Sneha N S. Ms. Chitrakala Shetty and Ms.Gowri T Bhat provided technical support during the Laboratory sessions.

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Shri Madhwa Vadiraja Institute of Technology & Management
Vishwothama Nagara, Bantakal, Udupi - 574115

Value Added Course (2021-22)

Department: Computer Science and Engineering

Class: 5th Semester Course

Title: R Programming

1. Course details

1.1 Primary information

1	**L-T-P**	1-1-0
2	**Pre-requisite**	Basic computer skills and knowledge
3	**Teaching Department**	Computer Science and Engineering
4	**Course Duration**	40 Hours
5	**Faculty Handling the course**	Ms. Deepthi G Pai Ms.Sneha N S Ms.Rukmini Bhat

1.2 Textbooks

1 R Programming for Beginners by Nathan Metzler

1.3 Other Resources (Online, Text, Multimedia, etc.)

https://www.r-project.org/about.html
https://www.w3schools.com/r/

1.4 Link of class web page (Google classroom/CANVAS etc.,)

Google Classroom Link

https://classroom.google.com/c/NDIwNTQ3NTY0ODUz

Code: c7i7d7k

1.5 Course Outcomes

Sl. No.	At the end of the course, Students will be able to	Bloom's Level
CO1	Understand the basics in R programming in terms of constructs, control statements, string functions	L2
CO2	Understand the use of R for Big Data analytics	L2
CO3	Learn to apply R programming for Text processing	L3
CO4	Able to apply the R programming from a statistical perspective	L3

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Cognitive levels as per Bloom's Taxonomy: *L1-Remembering, L2-Understanding, L3-Applying, L4-Analyzing, L5-Evaluating and L6-Creating*

1.6 Mapping of Cos with Pos (Course articulation matrix)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2		1										1	
CO2	2	1	1											
CO3	2	1	1		1									
CO4	2		1		1									

POs Mapping Level: *1-Slightly 2-Moderately 3-Highly*

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Value Added Course on R Programming

Syllabus:

UNIT 1 : Background, Getting Started

Introducing to R – Overview and History of R –How to download and Install R studio -R Data Types – R Console Input and Evaluation- -R Objects and Attribute- Vectors and Lists – Matrices- Factors- Missing Values- Data Frames- Names Attribute- Summary-Reading Tabular Data

UNIT 2: Programming with R

Control Structures - Introduction-Control Structures - If-else-Control Structures - For Loops - While loops - Repeat, Next, Break-Your First R Function - Functions - Coding Standard -Dates and Times

UNIT 3- Loop Functions

Loop functions - l apply - s apply - apply- t apply- m apply-date and times in r

UNIT 4 –Debugging

Debugging and debugging tools – Diagnosing the Problem - Basic Tools- Using the Tools - trace back-Profiling R code: Optimizations

Course Learning Objectives:

This course will enable students to:

1. Explore and understand how R and R Studio interactive environment.
2. To learn and practice programming techniques using R programming.
3. Read Structured Data into R from various sources.
4. Understand the different data Structures, data types in R.
5. To develop small applications using R Programming

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Course Outcomes:

After successful completion of the course students should be able to

1. Understand the basics in R programming in terms of constructs, control statements, string functions
2. Understand the use of R for Big Data analytics
3. Learn to apply R programming for Text processing
4. Able to apply the R programming from a statistical perspective

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VAC-R.22.23 8

A short list of the most useful R commands

A summary of the most important commands with minimal examples. See the relevant part of the guide for better examples. For all of these commands, using the help(function) or ? function is the most useful source of information. Unfortunately, knowing what to ask for help about is the hardest problem.

See the R-reference card by Tom Short for a much more complete list.

Input and display

```
                                          #read files with labels in first row
read.table(filename,header=TRUE)          #read a tab or space delimited file
read.table(filename,header=TRUE,sep=',')  #read csv files

x=c(1,2,4,8,16 )                          #create a data vector with specified elements
y=c(1:10)                                 #creat a data vector with elements 1-10
n=10
x1=c(rnorm(n))                            #create a n item vector of random normal
                                            deviates
y1=c(runif(n))+n                          #create another n item vector that has n added
                                            to each random uniform distribution
z=rbinom(n,size,prob)                     #create n samples of size "size" with
                                            probability prob from the binomial
vect=c(x,y)                               #combine them into one vector of length 2n
mat=cbind(x,y)                            #combine them into a n x 2 matrix
mat[4,2]                                  #display the 4th row and the 2nd column
mat[3,]                                   #display the 3rd row
mat[,2]                                   #display the 2nd column
subset(dataset,logical)                   #those objects meeting a logical criterion
subset(data.df,select=variables,logical)  #get those objects from a data frame that meet
                                            a criterion
data.df[data.df=logical]                  #yet another way to get a subset
x[order(x$B),]                            #sort a dataframe by the order of the elements
                                            in B
x[rev(order(x$B)),]                       #sort the dataframe in reverse order
browse.workspace                          #a menu command that creates a window with
                                            information about all variables in the
                                            workspace
```

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moving around

```
ls()                                    #list the variables in the workspace
rm(x)                                   #remove x from the workspace
rm(list=ls())                           #remove all the variables from the workspace
attach(mat)                             #make the names of the variables in the matrix
or data frame available in the workspace
detach(mat)                             #releases the names
new=old[,-n]                            #drop the nth column
new=old[n,]                             #drop the nth row
new=subset(old,logical)                 #select those cases that meet the logical
                                          condition
complete = subset(data.df,complete.cases(data.df)) #find those cases with no missing values
new=old[n1:n2,n3:n4]                    #select the n1 through n2 rows of variables n3
                                          through n4)
```

distributions

```
beta(a, b)
gamma(x)
choose(n, k)
factorial(x)
dnorm(x, mean=0, sd=1, log = FALSE) #normal distribution
pnorm(q, mean=0, sd=1, lower.tail = TRUE, log.p = FALSE)
qnorm(p, mean=0, sd=1, lower.tail = TRUE, log.p = FALSE)
rnorm(n, mean=0, sd=1)
dunif(x, min=0, max=1, log = FALSE) #uniform distribution
punif(q, min=0, max=1, lower.tail = TRUE, log.p = FALSE)
qunif(p, min=0, max=1, lower.tail = TRUE, log.p = FALSE)
runif(n, min=0, max=1)
```

data manipulation

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```
replace(x, list, values)                #remember to assign this to some object i.e., x <-
                                          replace(x,x==-9,NA)
                                          #similar to the operation x[x==-9] <- NA


cut(x, breaks, labels = NULL,
    include.lowest = FALSE, right = TRUE, dig.lab = 3, ...)

x.df=data.frame(x1,x2,x3 ...)           #combine different kinds of data into a data frame
        as.data.frame()
        is.data.frame()
x=as.matrix()
scale()                                  #converts a data frame to standardized scores

round(x,n)                               #rounds the values of x to n decimal places
ceiling(x)                               #vector x of smallest integers > x
floor(x)                                 #vector x of largest interger < x
as.integer(x)                            #truncates real x to integers (compare to
                                          round(x,0)
as.integer(x < cutpoint)                 #vector x of 0 if less than cutpoint, 1 if greater
                                          than cutpoint)
factor(ifelse(a < cutpoint, "Neg", "Pos"))  #is another way to dichotomize and to make a
                                          factor for analysis
transform(data.df,variable names = some operation) #can be part of a set up for a data set

x%in%y                                   #tests each element of x for membership in y
y%in%x                                   #tests each element of y for membership in x
all(x%in%y)                              #true if x is a proper subset of y
all(x)                                   # for a vector of logical values, are they all true?
any(x)                                   #for a vector of logical values, is at least one
true?
```

Statistics and transformations

```
max()
min()
mean()
```

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```
median()
sum()
var()                  #produces the variance covariance matrix
sd()                   #standard deviation
mad()                  #(median absolute deviation)
fivenum()              #Tukey fivenumbers min, lowerhinge, median, upper hinge, max
table()                #frequency counts of entries, ideally the entries are factors(although it
                         works with integers or even reals)
scale(data,scale=T)    #centers around the mean and scales by the sd)
cumsum(x)              #cumulative sum, etc.
cumprod(x)
cummax(x)
cummin(x)
rev(x)                 #reverse the order of values in x

cor(x,y,use="pair")    #correlation matrix for pairwise complete data, use="complete" for
                         complete cases

aov(x~y,data=datafile)  #where x and y can be matrices
  aov.ex1 = aov(DV~IV,data=data.ex1)          #do the analysis of variance or
  aov.ex2 = aov(DV~IV1*IV21,data=data.ex2)    #do a two way analysis of variance
summary(aov.ex1)                              #show the summary table
print(model.tables(aov.ex1,"means"),digits=3)  #report the means and the number of
                                                subjects/cell
boxplot(DV~IV,data=data.ex1)                  #graphical summary appears in graphics
                                                window

lm(x~y,data=dataset)                          #basic linear model where x and y can be
                                                matrices (see plot.lm for plotting options)
t.test(x,g)
pairwise.t.test(x,g)
power.anova.test(groups = NULL, n = NULL, between.var = NULL,
                 within.var = NULL, sig.level = 0.05, power = NULL)
power.t.test(n = NULL, delta = NULL, sd = 1, sig.level = 0.05,
             power = NULL, type = c("two.sample", "one.sample", "paired"),
             alternative = c("two.sided", "one.sided"),strict = FALSE)
```

More statistics: Regression and Linear model

```
lm(Y~X)                          #Y and X can be matrices
lm(Y~X1+X2)
lm(Y~X|W)
solve(A,B)                       #inverse of A * B - used for linear regression
solve(A)                         #inverse of A
factanal()
princomp()
```

Useful additional commands

```
colSums (x, na.rm = FALSE, dims = 1)
rowSums (x, na.rm = FALSE, dims = 1)
colMeans(x, na.rm = FALSE, dims = 1)
rowMeans(x, na.rm = FALSE, dims = 1)
rowsum(x, group, reorder = TRUE, ...)    #finds row sums for each level of a grouping
                                           variable
    apply(X, MARGIN, FUN, ...)           #applies the function (FUN) to either rows (1) or
                                           columns (2) on object X
    apply(x,1,min)                       #finds the minimum for each row
    apply(x,2,max)                        #finds the maximum for each column
    col.max(x)                            #another way to find which column has the
maximum value for each row
    which.min(x)
    which.max(x)
        z=apply(big5r,1,which.min)       #tells the row with the minimum value for every
column
```

Graphics

```
par(mfrow=c(nrow,mcol))                  #number of rows and columns to graph
par(ask=TRUE)                            #ask for user input before drawing a new graph
par(omi=c(0,0,1,0) )                      #set the size of the outer margins
```

```
mtext("some global title",3,outer=TRUE,line=1,cex=1.5)      #note that we seem to need to add
the global title last
                                                    #cex = character expansion factor

boxplot(x,main="title")                             #boxplot (box and whiskers)

title( "some title")                                #add a title to the first graph

hist()                                              #histogram
plot()
        plot(x,y,xlim=range(-1,1),ylim=range(-1,1),main=title)
        par(mfrow=c(1,1))                           #change the graph window back to one figure
        symb=c(19,25,3,23)
        colors=c("black","red","green","blue")
        charact=c("S","T","N","H")
        plot(PA,NAF,pch=symb[group],col=colors[group],bg=colors[condit],cex=1.5,main="P
            ostive vs. Negative Affect by Film condition")
        points(mPA,mNA,pch=symb[condit],cex=4.5,col=colors[condit],bg=colors[condit])

curve()
abline(a,b)
      abline(a, b, untf = FALSE, ...)
      abline(h=, untf = FALSE, ...)
      abline(v=, untf = FALSE, ...)
      abline(coef=, untf = FALSE, ...)
      abline(reg=, untf = FALSE, ...)

identify()
        plot(eatar,eanta,xlim=range(-1,1),ylim=range(-1,1),main=title)
        identify(eatar,eanta,labels=labels(energysR[,1])  )        #dynamically puts names
on the plots
locate()

legend()
pairs()             #SPLOM (scatter plot Matrix)
pairs.panels ()     #SPLOM on lower off diagonal, histograms on diagonal, correlations on
diagonal
                    #not standard R, but uses a function found in useful.r
```

```
matplot ()
biplot ())
plot(table(x))          #plot the frequencies of levels in x

x= recordPlot()         #save the current plot device output in the object x
replayPlot(x)           #replot object x
dev.control             #various control functions for printing/saving graphic files
pdf(height=6, width=6)      #create a pdf file for output
dev.of()                    #close the pdf file created with pdf
layout(mat)                 #specify where multiple graphs go on the page
                            #experiment with the magic code from Paul Murrell to do fancy
graphic location
layout(rbind(c(1, 1, 2, 2, 3, 3),c(0, 4, 4, 5, 5, 0)))
for (i in 1:5) {
  plot(i, type="n")
  text(1, i, paste("Plot", i), cex=4)
}
```

Distributions

To generate random samples from a variety of distributions

```
runif(n,lower,upper)
rnorm(n,mean,sd)
rbinom(n,size,p)
sample(x, size, replace = FALSE, prob = NULL)        #samples with or without replacement
```

Working with Dates

```
date <-strptime(as.character(date), "%m/%d/%y")    #change the date field to a internal form
for time
                                                   #see ?formats and ?POSIXlt
as.Date
month= months(date)                    #see also weekdays, Julian
```

Additional functions that I have created because I needed some specific operation may be included in the workspace by issuing the source command:

source(http://personality-project.org/r/useful.r)

These functions include:

#alpha.scale	#find coefficient alpha for a scale and a dataframe of items
#describe	give means, sd, skew, n, and se
#summ.stats	#basic summary statistics by a grouping variable
#error.crosses	(error bars in two space)
#skew	find skew
#panel.cor	taken from the examples for pairs
#pairs.panels	adapted from panel.cor -- gives a splom, histogram, and correlation matrix
#multi.hist	#plot multiple histograms
#correct.cor	#given a correlation matrix and a vector of reliabilities, correct for reliability
#fisherz	#convert pearson r to fisher z
#paired.r	#test for difference of dependent correlations
#count.pairwise	#count the number of good cases when doing pairwise analysis
#eigen.loadings	#convert eigen vector vectors to factor loadings by unnormalizing them
#principal	#yet another way to do a principal components analysis -- brute force eignvalue decomp
#factor.congruence	#find the factor congruence coeffiecints
#factor.model	#given a factor model, find the correlation matrix
#factor.residuals	#how well does it fit?
#factor.rotate	# rotate two columns of a factor matrix by theta (in degrees)
#phi2poly	#convert a matrix of phi coefficients to polychoric correlations

---

part of a short guide to R
Version of February 20, 2005
William Revelle
Department of Psychology
Northwestern University

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
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VAC – R Programming – List of students participated

SL.No	USN	NAME
1	4MW19CS006	AKASH S KOTIAN
2	4MW19CS009	ANANYA D
3	4MW19CS013	ANJALI SHET
4	4MW19CS014	ANKUSH HEGDE
5	4MW19CS015	ANUJNA
6	4MW19CS016	ANUSHA
7	4MW19CS021	ASHLESH H GAMS
8	4MW19CS024	B T ANVIT
9	4MW19CS025	BHAGYALAKSHMI B SHETTY
10	4MW19CS030	DEEKSHA SHETTIGAR
11	4MW19CS031	DEEKSHA SHETTY
12	4MW19CS032	DHATHRI TENDULKAR
13	4MW19CS033	DISHASHREE
14	4MW19CS036	GOUTHAM N SHET
15	4MW19CS037	HARIPRASAD BHAT K
16	4MW19CS039	J TRESHIKA
17	4MW19CS040	JEEVITHA
18	4MW19CS041	JELENA RIYA LEWIS
19	4MW19CS042	JNANESH B S
20	4MW19CS053	MANJUSHRE VINAYAK BHOMKAR
21	4MW19CS055	MANVITHA ANANTH NILEKANI
22	4MW19CS059	NISHITH SHETTY
23	4MW19CS073	RAKSHA B KOTTARI
24	4MW19CS079	SANJANA S
25	4MW19CS093	SHREYA S
26	4MW19CS121	RAKSHITH ACHARYA
27	4MW20CS402	SHANBHAG KARTHIKEYA

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VALUE ADDED COURSE
ON
R PROGRAMMING.

26/10/21

Sl. no	USN	Name.	IN	Out	Signature
1.	4MW19CS042	Jnanesh. BS	3:00	4:30	
2.	4MW19CS036	Gautam N Shet	3:00	4:30	
3.	4MW19CS006	Akash. S. Kotiam	3.00	4.30	
4.	4MW19CS059	Nishith	3:00	4:30	
5	4MW19CS014	Ankush	3:00	4:30	
6	4MW19CS039	S. Tushika	3:00	4:30	
7	4MW19CS055	Manvitha A N	3:00	4:30	
8	4MW19CS032	Dhathri Tendulkar	3:00	4:30	
9.	4MW19CS009	Ananya. D	3:00	4:30	
10.	4MW19CS031	Deekshith Shetty	3:00	4:30	
11.	4MW19CS093	Shreya. S	3:00	4:30	
12.	4MW19CS083	Raksha. B. Kotian	3:00	4:30	
13.	4MW19CS121	Rakshith Acharya	3:00	4:30	
14	4MW19CS037	Narpraasad Bhat	3:00	4:30	
15	4MW19CS021	Abhishek. M. Gowda	3:00	4:30	
16.	4MW19CS015	Anujna	3:00	4:30	
17	4MW19CS013	Anjali	3:00	4:30	
18	4MW19CS024	B. T. Anvith	3:00	4:30	
19	4MW19CS040	Jeevitha	3:00	4:30	
20	4MW19CS030	Deekshashettigar	3:00	4:30	
21	4MW19CS079	Sanjana S	"	"	
22	4MW19CS089	Shravya K	"	"	
23	4MW19CS025	Bhagyalakshmi	"	"	
24	4MW19CS053	Manjushree	"	"	

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BANTAKAL - 574 115

Value Added course Time: 3.00 - 4.45

Date: 09/11/21

Sl. No.	Name	USN	login	out	Sign
1.	Sanjana S	4MW19CS079	3:00	4:30	
2.	Jeevitha	4MW19CS040	3:00	4:30	
3.	Ashlesh. H. Gowda	4MW19CS021	"	"	
4.	Hasiparavad Bhatk	4MW19CS037	"	"	
5.	Bhagyalakshmi	4MW19CS025	"	"	
6.	Manjeshree	4MW19CS053	"	"	
7	Rakshith Acharya	4MW19CS121	"	"	
8	Raksha	4MW19CS073	"	"	
9	Shreyd	4MW19CS093	"	"	
10	Dishashree	4MW19CS033	"	"	
11	Deeksha Shettigar	4MW19CS030	"	"	
12.	Deeksha Shetty	4MW19CS031	"	"	
13	J. Trishika	4MW17CS039	"	"	
14	Manidha. A. N	4MW19CS065	"	"	
15	Dhathri Tendulkar	4MW19CS032	"	"	
16	Nishith Shetty	4MW19CS059	"	"	
17	Shanbhag karthikeya	4MW20CS402	"	"	
18	Jnanesh BS	4MW19CS042	"	"	
19	Gautam N Shet	4MW19CS036	"	"	
20	Akash S Kotian	4MW19CS006	"	"	

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Class: V[th] Sem

Sub: R Programming (V.A.C)

Date: 16-01-21

Time: 3:00 - 4.45pm

SLNo	Name	USN	Login Time	Logout Time	Sign
1	4MW19CS089	Bhavya Kamathu	3:00	4:30	
2	4MW19CS078	Anjana S	"	"	
3	BT Anvit	4MW19CS024	"	"	BTAnvit
4	Anusha	4MW19CS016	"	"	
5	Anuja	4MW19CS015	"	"	
6	Ankush	4MW19CS014	"	"	
7	Jelna Riya.	4MW19ES041	"	"	
8	Nishita Shetty	4MW19CS059	"	"	
9	Shubhag Karthikeya	4MW20CS402	"	"	
10	J. Tejhika	4MW19CS039	"	"	

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[illegible]

Class : V^M S.m

Date : 23-11-21

Sub : R Programming

Time : 3-00-4.45

Sl No.	Name	USN	Exam Time	Exam Out Time	Sign
1	Akash. S. Kotian	4MW19CS006	3:00	4:30	Akash
2	Gautam N Shet	4MW19CS036	"	"	Gautam
3	Hariprasad Bhat K	4MW19CS037	"	"	Hariprasad
4	Jnanesh BS	4MW19CS042	"	"	Jnanesh
5	Nishith Shetty	4MW19CS059	"	"	Nishith
6.	Jelina Riya Lewis	4MW19CS041	"	"	JelinaRiya
7	Ananya D.	4MW19CS009.	"	"	Ananya D.
8	Manjushree V. B	4MW19CS053	"	"	Manjushree
9.	Jeevitha	4MW19CS040	"	"	Jeevitha
10	Sanjana S	4MW19CS079	"	"	Sanjana
11.	Deeksha Shetty	4MW19CS031	"	"	Deeksha
12.	Bhagyalakshmi	4MW19CS092	"	"	Bhagyalakshmi
13.	Bhavya. S	4MW19CS093	"	"	Bhavya
14	Raksha	4MW19CS073	"	"	Raksha
15	Rapshith Acharya	4MW19CS121	"	"	Rapshith
16	Rekha Shettigar	4MW19CS030	"	"	Rekha
17	Dishashree	4MW19CS033	"	"	Dishashree
18	Dhathri Tendulkar	4MW19CS032	"	"	Dhathri
19	Manvitha. Ananth. Nilekani	4MW19CS055	"	"	Manvitha
20	J. Tushika	4MW19CS039	"	"	J. Tushika

23/11/21

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Class: V^th Sem

Date: 07-12-21

Sub: R Programming

Time: 3:00-4:45pm

Sl No	Name	USN	Hour Taught From	To	Sign
1.	Poorvesh. H. Jain	4MW19CS021	3:00	4:45	
2.	Gautam N Shet	4MW19CS036	"	"	
3.	Jnanesh BS	4MW19CS042	"	"	
4	Hariprasad Bhat k	4MW19CS037	"	"	
5.	Shanbhag karthikeya	4MW20CS402	"	"	
6.	Manvitha. Ananth. Nilekani	4MW19CI055	"	"	
7.	Dhathri Tendulkar	4MW19CI032	"	"	
8	J. Treshika	4MW19CS039	"	"	
9.	Shreya. S	4MW19CS093	"	"	
10.	Raksha B Koltari	4MW19CS073	"	"	
11	Manjushree V. B	4MW19CS053	"	"	
12	Bhagyalakshmi	4MW19CS025	"	"	
13.	Deeksha Shetty	4MW19CS031	"	"	
14.	Vanjana S	4MW19CS079	"	"	
15	Bhavya Kamath U	4MW19CS089	"	"	
16.	Jeevitha	4MW19CS040	"	"	
17.	Rakshith Acharya	4MW19CI121	"	"	
18.	Ishwarya	4MW19CS041	"	"	
19.	Ananya D.	4MW19CS041	"	"	

7/12/21

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Class: V^th Sem

Date: 21-12-21

Page No:

Date: Time: 3:00 - 4:45p

Sub: R Programming

Sl.No	Name	USN	Login Time	Logout Time	Sign
1	Sanjana J	4MW19CS079	3:08	4:45	
2	Shanbhag Karthikeya	4MW20CS402	3:00	4:45	
3.	Dhathri Tendulkar	4MW19CS032	"	"	
4.	Jnanesh BS	4MW19CS042	"	"	
5.	Akash S. Kotian	4MW19CS006	"	"	
6.	Jeevitha	4MW19CS040	"	"	
7.	Jelina Riya Lewis	4MW19CS041	"	"	
8.	Ananya D	4MW19CS009	"	"	
9.	Bhagyalakshmi	4MW19CS025	"	"	
10.	Manjushree	4MW19CS053	"	"	
11.	Deeksha Shetty	4MW19CS031	"	"	
12	Gautam N Shet	4MW19CS036	"	"	
13	Nanprasad Bhat K	4MW19CS037	"	"	
14	Ashlesh. H. Gams	4MW19CS021	"	"	
15	Deeksha Muttigar	4MW19CS030	"	"	
16	Disha shree	4MW19CS033	"	"	
17	Manutha Ananth Nilekani	4MW19CS055	"	"	
18	J. Thejaswini	4MW19CS057	3:00	4:45	

21/12/21

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Class : V Sem

Date: 04-01-22

Sub: R Programming (Value Added course)

Time: 3.00 - 4.45pm

SL No	Name	USN	Login Time	Logout Time	Sign
1	T. Tejaswika	4MW19CS039	3:00	4:30	
2.	Idna Riyaluis	4MW19CS041	3:00	4:30	
3	Nishith Shetty	4MW19CS059	3:00	4:00	
4.	Rakshith Acharya	4MW19CS121	"	"	
5.	Rakshu B Kothari	4MW19CS073	"	"	
6.	Shreya S.	4MW19CS093	"	"	

4/1/22

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DEPARTMENT OF COMPUTER SCIENCE

R PROGRAMMING – ASSESSMENT QUESTIONS

1. Use a nested for loop (a for loop inside a for loop) that produces the following matrix, preallocate the matrix with NA values.

0	1	2	3	4
1	0	1	2	3
2	1	0	1	2
3	2	1	0	1
4	3	2	1	0

1. Write a R program to Implement the working of Simple calculator using functions

1. Implement a simple version of Guess the number game using a while loop. The user should guess a number between 1 and 10, you can use scan() to get user input. The loop should break if the user guesses 5.

1. Write a simple R program function to calculate area and perimeter of a rectangle

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VALUE ADDED COURSE ON R PROGRAMMING FEEDBACK

SLNO	Name	USN	Semester	Section	How was the event?	How relevant and helpful do you think it was?	What was your key takeaway from this event?	How satisfied were you with the session content?	Where do you think you will apply the knowledge gained from this session?	Which helps you understand concepts better?	Any overall feedback for the event?
1	Rakshith Acharya	4MW19CS121	5	B	Good	5	Learnt R language	5	Projects	Listening thoroughly to explanation and using prepared code	Overall good!
2	Deeksha Shettigar	4MW19CS030	5	A	Very Good	4	I'm able code atleast something using R language	4	Projects, Academics	Hands on session (typing with the trainer)	It was a very good initiative taken by our department.Hoping for more interesting learning like this!
3	Akash S Kotian	4MW19CS006	5	A	Good	4	Knowledge	4	Projects	Listening thoroughly to explanation and using prepared code	Nice...
4	Nishith Shetty	4MW19CS059	5	A	Very Good	5	The core fundamentals were strengthened early on, making them easier to grasp.	5	Projects	Hands on session (typing with the trainer)	A great event. Was helpful and will be looking forward to more of such events.
5	Shankhag Karthikeya	4MW20CS402	5	B	Very Good	5	Basics of r programming	5	Projects, Academics	Hands on session (typing with the trainer)	Thanks for organizing the event it was helpful
6	Shreya S	4mw19cs093	5	B	Good	4	Got to know about a new coding language	4	Projects, Academics	Hands on session (typing with the trainer)	Very helpfull event. Got a chance to learn about new language
7	Manjushree Vinayak Bhomkar	4MW19CS053	5	A	Very Good	5	Came to know about new programing language.	5	Projects	Hands on session (typing with the trainer)	All-over the event good and it was very useful.
8	Ananya D	4MW19CS009	5	A	Very Good	5	Good	4	Projects	Hands on session (typing with the trainer)	Good
9	Bhagyalakshmi B Shetty	4MW19CS025	5	A	Very Good	5	Learnt new language other than syllabus and it was very useful	5	Projects	Hands on session (typing with the trainer)	It was very useful.
10	Anujnu	4mw19cs015	5	A	Good	4	Learnt how to use R language	4	Projects, Academics	Hands on session (typing with the trainer)	It was useful,we got to know more about r language
11	Anjali Shet	4MW19CS013	5	A	Very Good	5	Learnt how to implement basic problems using R language	5	Projects, Academics	Hands on session (typing with the trainer)	It was very useful and would be looking forward for further sessions
12	Anusha	4MW19CS016	5	A	Good	5	I got to learn the basics of r language which will be very useful.	5	Projects, Academics	Hands on session (typing with the trainer)	-
13	Gautam N Shet	4MW19CS036	5	A	Very Good	5	Great knowledge of R programming language..	5	Projects	Hands on session (typing with the trainer)	It was a great experience and waiting for similar sessions further..
14	Raksha B Kottari	4mw19cs073	5	B	Good	5	Basic structure of r language, looping, how to use r studio	5	Projects	Hands on session (typing with the trainer)	Good and effective
15	Jnanesh B S	4MW19CS042	5	A	Good	4	R programming knowledge	4	Projects	Hands on session (typing with the trainer)	Informative event
16	Dishashree	4MW19CS033	5	A	Very Good	5	I was atleast able to code using R language	5	Projects	Listening thoroughly to explanation and using prepared code	It was good
17	Sanjana S	4MW19CS079	5	B	Very Good	5	We could learn the R programming very effectively and execute it in the system confidentially	5	Projects, Academics	Hands on session (typing with the trainer)	Informative and effective event.
18	Jelena Riya Lewis	4MW19CS041	5	A	Very Good	5	Learnt about R programming	5	Projects, Academics	Hands on session (typing with the trainer)	Good.
19	Hariprasad Bhat K	4MW19CS037	5	A	Very Good	5	R language was useful	5	Projects, Academics	Hands on session (typing with the trainer)	Good
20	Manvitha Ananth Nilekani	4MW19CS055	5	A	Very Good	4	Basics on r programming	4	Projects	Hands on session (typing with the trainer)	It has been very helpful to us ,to gain the knowledge about r programming.
21	Ashlesh H Gaira	4MW19CS021	5	A	Good	4	Learnt R programming	4	Projects	Hands on session (typing with the trainer)	Good

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Photos

Latitude:13.254574
Longitude:74.785258

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Vishwothama Nagar, Bantakal, Udupi - 574 115, Karnataka, India

SMVITM

Department of Computer Science & Engineering

Certificate

This is to certify that Mr./Ms ANANYA D. of Computer Science & Engineering department has successfully completed Value Added Course on ***"R PROGRAMMING"*** held at Shri Madhwa Vadiraja Institute of Technology & Management, Bantakal from 23rd October 2021 to 12th February 2022.

Dr. Nagaraj Bhat	Ms Rukmini Bhat B	Dr. Thirumaleshwara Bhat
Head, Dept. of CSE	Asst. Professor(sr.), Dept of CSE	Principal

Principal
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Vishwothamanagar, Bantakal - 574 115, Udupi, Karnataka, India
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SMVITM

Dr. Nagaraj Bhat
Associate Professor and Head

14th February,2022

Ms. Rukmini Ballal
epartment of CSE
SMVITM, Bantakal

Dear Madam,

Sub: Letter of Appreciation

This is to place on record my sincere appreciation and compliments to Ms. Rukmini Ballal for conducting an Value Added Course on "R Programming" held between 23/10/2021 to 12/02/2022 in the institute premises for the benefit of students. The course went on well and received much appreciation from the students.

We look forward to your continued support for the similar events in the days to come.

Thanking you

With best regards

HOD, CS

Head
Dept. of Comp.Science & Engg
SMVITM, BANTAKAL-574 115

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