MDA102-Statistical meth

Day 7, 06 July 202
6.30 AM – 8.30 AM
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MISSION
CHRIST is a nurturing ground for an individual's holistic development to make effective contribution to the society in a dynamic environment

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Excellence and Service

Conditional statements –Contd…

- Which()

```
which(condition)#returns positio
met
x<-c(1,2,3,4)
which(x>2)
[1] 3 4
x[which(x>2)]
[1] 3 4
```

Conditional statements –Contd…

```
employees<-c("jack","Jill")
salary<-c(89000,75000)
d<-data.frame(employees,salary,s
FALSE)
d$costly<-ifelse(d$salary>80000,
d
  employees salary costly
1      jack  89000      1
2      Jill  75000      0
```

Conditional statements –Contd…

```
which(d$salary>80000)#returns ro
condition in the case of data fr
[1] 1
d[which(d$salary>80000),]
  employees salary costly
1      jack  89000      1
```

Conditional statements –Contd…

- switch() - to excecute one of many statements bas

```
switch(expression,statement1,,st
)
test<-1#executes statement 1
switch(test,mean(d$salary),media
y))# executes statement 1
[1] 82000
test<-2#executes statement 2
switch(test,mean(d$salary),media
y))# executes statement 2
[1] 82000
test<-3
switch(test,mean(d$salary),media
y))# executes statement 3
[1] 9899.495
```

loops

for - it is a finite loop -syntax is

```
for (i in 1:10){
  Do this
}
```

- illustration

```
for (i in 1:10){
  print(i)
}
[1] 1
[1] 2
[1] 3
[1] 4
[1] 5
[1] 6
[1] 7
[1] 8
[1] 9
[1] 10
```

```
for (num in x){
  square<-num^2
  print(square)
}
[1] 16
[1] 25
[1] 64
[1] 81
x<-c('Joe', 'Johan', 'Abi')
for (l in x){
  print(l)
}
[1] "Joe"
[1] "Johan"
[1] "Abi"
```

Loops – contd…

- nested for loop over a matrix

```
a<-matrix(c(4,5,6,7),2,2)
for (r in 1:nrow(a)){
  for (c in 1:ncol(a)) {
    print(a[r,c])#product of indices

  }
}
[1] 4
[1] 6
[1] 5
[1] 7
```