

# LAB-02

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```
#a)
Fdata <- read.csv('./FlowerData.csv')
#b)
class(Fdata) #dataframe because it's class says so
```

```
## [1] "data.frame"
```

```
#c)
nums <- unlist(lapply(Fdata, is.numeric))
FlowerMatrix <- Fdata[ , nums ]
#d)
colnames(FlowerMatrix) <- c('Age (in days)', 'Height (in cm)')

#e)
head(FlowerMatrix)
```

```
##   Age (in days) Height (in cm)
## 1           31           5.0
## 2           48          16.0
## 3           39          12.5
## 4           29           6.0
## 5           32           4.0
## 6           37           7.0
```

```
rownames(FlowerMatrix) <- Fdata[ , 'Individual']
head(FlowerMatrix)
```

```
##   Age (in days) Height (in cm)
## a           31           5.0
## b           48          16.0
## c           39          12.5
## d           29           6.0
## e           32           4.0
## f           37           7.0
```

```
#a)
average_age_of_flowers <- mean(FlowerMatrix[ , 'Age (in days)'])

#b)
average_height_of_flowers <- mean(FlowerMatrix[ , 'Height (in cm)'])

average_age_of_flowers
```

```
## [1] 37.42222
```

```
average_height_of_flowers
```

```
## [1] 11.87778
```

```
#c)
tallest_index <- which.max(FlowerMatrix[ , 'Height (in cm)'])
tallest <- max(FlowerMatrix[ , 'Height (in cm)'])

#d)
youngest_index <- which.min(FlowerMatrix[ , 'Age (in days)'])
youngest <- min(FlowerMatrix[ , 'Age (in days)'])

tallest
```

```
## [1] 19
```

```
tallest_index
```

```
## [1] 36
```

```
youngest
```

```
## [1] 26
```

```
youngest_index
```

```
## [1] 8
```

```
#e)

tallest_color <- Fdata[, 'Colour'][tallest_index]
youngest_color <- Fdata[, 'Colour'][youngest_index]

tallest_color
```

```
## [1] "yellow"
```

```
youngest_color
```

```
## [1] "yellow"
```

```
#a)

#The issue was that the previous Fdata had the original col names when printed in another block. In order to fix the error and mutate the original csv with the new col names I used the 'names' function.
Fdata
```

##	Individual	Age..days.	Height..cm.	Colour
## 1	a	31	5.0	purple
## 2	b	48	16.0	yellow
## 3	c	39	12.5	red
## 4	d	29	6.0	red
## 5	e	32	4.0	red
## 6	f	37	7.0	yellow
## 7	g	37	8.0	yellow
## 8	h	26	5.5	yellow
## 9	i	41	10.0	purple
## 10	j	34	8.5	purple
## 11	k	38	12.0	pr
## 12	l	40	18.0	yellow
## 13		45	16.0	yellow
## 14	n	40	12.5	yellow
## 15	o	43	9.5	red
## 16	p	33	7.0	yellow
## 17	q	35	6.0	yellow
## 18	r	39	6.5	yellow
## 19	s	37	12.5	red
## 20	t	32	13.0	purple
## 21	u	31	10.5	yellow
## 22	v	36	11.0	red
## 23	w	41	17.0	red
## 24	x	39	15.5	yellow
## 25	y	31	9.5	yellow
## 26	z	33	10.0	yellow
## 27	aa	33	11.0	yellow
## 28	bb	28	5.5	red
## 29	cc	35	13.5	red
## 30	dd	37	16.0	yellow
## 31	ee	42	14.0	red
## 32	ff	45	17.0	red
## 33	gg	37	16.5	red
## 34	hh	46	18.0	red
## 35	ii	37	17.5	yellow
## 36	jj	44	19.0	yellow
## 37	kk	44	14.0	yellow
## 38	ll	37	8.0	yellow
## 39	mm	29	10.0	yellow
## 40	nn	37	9.0	red
## 41	oo	36	12.0	purple
## 42	pp	47	15.5	purple
## 43	qq	38	16.0	yellow
## 44	rr	40	16.0	red
## 45	ss	45	17.0	purple

```
names(Fdata) <- c('Individual','Age (days)','Height (cm)','Colour')
```

Fdata

##	Individual	Age (days)	Height (cm)	Colour
## 1	a	31	5.0	purple
## 2	b	48	16.0	yellow
## 3	c	39	12.5	red
## 4	d	29	6.0	red
## 5	e	32	4.0	red
## 6	f	37	7.0	yellow
## 7	g	37	8.0	yellow
## 8	h	26	5.5	yellow
## 9	i	41	10.0	purple
## 10	j	34	8.5	purple
## 11	k	38	12.0	pr
## 12	l	40	18.0	yellow
## 13		45	16.0	yellow
## 14	n	40	12.5	yellow
## 15	o	43	9.5	red
## 16	p	33	7.0	yellow
## 17	q	35	6.0	yellow
## 18	r	39	6.5	yellow
## 19	s	37	12.5	red
## 20	t	32	13.0	purple
## 21	u	31	10.5	yellow
## 22	v	36	11.0	red
## 23	w	41	17.0	red
## 24	x	39	15.5	yellow
## 25	y	31	9.5	yellow
## 26	z	33	10.0	yellow
## 27	aa	33	11.0	yellow
## 28	bb	28	5.5	red
## 29	cc	35	13.5	red
## 30	dd	37	16.0	yellow
## 31	ee	42	14.0	red
## 32	ff	45	17.0	red
## 33	gg	37	16.5	red
## 34	hh	46	18.0	red
## 35	ii	37	17.5	yellow
## 36	jj	44	19.0	yellow
## 37	kk	44	14.0	yellow
## 38	ll	37	8.0	yellow
## 39	mm	29	10.0	yellow
## 40	nn	37	9.0	red
## 41	oo	36	12.0	purple
## 42	pp	47	15.5	purple
## 43	qq	38	16.0	yellow
## 44	rr	40	16.0	red
## 45	ss	45	17.0	purple