

df-FilterSelectArrange

1. Dataset

```
library(tidyverse)

ID <- str_c("SD",101:110)
Test1 <- c(67,23,60,78,55,67,75,36,45,56)
Practical <- c(45,23,56,90,87,55,88,55,76,60)
FinalExam <- c(56,32,74,87,65,66,84,43,65,64)
df <- data.frame(ID, Test1, Practical, FinalExam)
df
```

	ID	Test1	Practical	FinalExam
1	SD101	67	45	56
2	SD102	23	23	32
3	SD103	60	56	74
4	SD104	78	90	87
5	SD105	55	87	65
6	SD106	67	55	66
7	SD107	75	88	84
8	SD108	36	55	43
9	SD109	45	76	65
10	SD110	56	60	64

2. Choose Rows

Choose Rows by row number - slice

```
head(df,3)
```

	ID	Test1	Practical	FinalExam
1	SD101	67	45	56
2	SD102	23	23	32
3	SD103	60	56	74

```
tail(df,3)
```

	ID	Test1	Practical	FinalExam
8	SD108	36	55	43
9	SD109	45	76	65
10	SD110	56	60	64

```
slice(df, 3:6)
```

	ID	Test1	Practical	FinalExam
1	SD103	60	56	74
2	SD104	78	90	87
3	SD105	55	87	65
4	SD106	67	55	66

Choose Rows by Criteria - filter()

```
filter(df, FinalExam<50)
```

	ID	Test1	Practical	FinalExam
1	SD102	23	23	32
2	SD108	36	55	43

3. Choose Columns - select()

```
names(df)
```

```
[1] "ID"          "Test1"       "Practical"   "FinalExam"
```

```
head(df)
```

	ID	Test1	Practical	FinalExam
1	SD101	67	45	56
2	SD102	23	23	32
3	SD103	60	56	74
4	SD104	78	90	87
5	SD105	55	87	65
6	SD106	67	55	66

```
df[,3:4]
```

	Practical	FinalExam
1	45	56
2	23	32
3	56	74
4	90	87
5	87	65
6	55	66
7	88	84
8	55	43
9	76	65
10	60	64

```
select(df, c("ID", "FinalExam"))
```

	ID	FinalExam
1	SD101	56
2	SD102	32
3	SD103	74
4	SD104	87
5	SD105	65
6	SD106	66
7	SD107	84
8	SD108	43
9	SD109	65
10	SD110	64

4. Sort by Column by name - arrange()

```
arrange(df, desc(FinalExam))
```

	ID	Test1	Practical	FinalExam
1	SD104	78	90	87
2	SD107	75	88	84
3	SD103	60	56	74
4	SD106	67	55	66
5	SD105	55	87	65
6	SD109	45	76	65
7	SD110	56	60	64
8	SD101	67	45	56
9	SD108	36	55	43
10	SD102	23	23	32

```
# default for arrange is ascending  
select(df, c(ID, FinalExam)) |> arrange(FinalExam)
```

	ID	FinalExam
1	SD102	32
2	SD108	43
3	SD101	56
4	SD110	64
5	SD105	65
6	SD109	65
7	SD106	66
8	SD103	74
9	SD107	84
10	SD104	87