

## **Lab. Work 4**

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## Problem Statement:

### Part 1:

Ex 1: Show the total sum of Fclass, Bclass, Eclass passengers

EX 2: Print passenger data where destination is = 'SEA'

EX 3: Print passenger data where destination is = 'SEA' suppress observation column

### Part 2:

Ex 1: Show personal data where State='NY' and JobCode in ('FA1' 'FA2' 'FA3')

Ex 2: Show personal data where Last Name has first two characters 'BR'

## Tasks:

### Part 1:

#### Code Snippet:

```
libname pass_lib '/home/u63603566/Lab - 4';
```

```
/*Total sum of FClass, BClass, EClass passengers */
```

```
data total_passengers;
```

```
    set pass_lib.passngrs;
```

```
    TotalPassengers = FClass + BClass + EClass;
```

```
run;
```

```
proc print data=total_passengers;
```

```
run;
```

```
/*Print passenger data where destination is 'SEA' */
```

```
proc print data=pass_lib.passngrs;
```

```
where Dest = 'SEA';
```

```
run;
```

```
/*Print passenger data where destination is 'SEA' and suppress observation column */
```

```
proc print data=pass_lib.passngrs noobs;
```

```
where Dest = 'SEA';
```

```
run;
```

### Results:

#### 1.1 Sum of All passengers in FClass, BClass, and EClass:

Obs	FlightID	Dest	Depart	FClass	BClass	EClass	TotalPassengers
1	IA01802	SEA	15101	10	9	132	151
2	IA01804	SEA	15101	11	12	111	134
3	IA02901	HNL	15101	13	24	138	175
4	IA03100	ANC	15101	13	22	150	185
5	IA03101	ANC	15101	14	.	133	.
6	IA01802	SEA	15102	12	11	126	149
7	IA01804	SEA	15102	12	8	119	139
8	IA02901	HNL	15102	14	25	132	171
9	IA03100	ANC	15102	16	26	143	185
10	IA01802	SEA	15103	12	13	115	140
11	IA01804	SEA	15103	12	12	136	160
12	IA02901	HNL	15103	12	21	155	188
13	IA03100	ANC	15103	14	18	137	169
14	IA01802	SEA	15104	10	18	128	156
15	IA01804	SEA	15104	11	17	105	133
16	IA02901	HNL	15104	13	22	150	185
17	IA03100	ANC	15104	14	17	144	175
18	IA03101	ANC	15104	13	.	142	.
19	IA01802	SEA	15105	11	14	131	156
20	IA01804	SEA	15105	11	18	104	133
21	IA02901	HNL	15105	13	14	145	172
22	IA03100	ANC	15105	15	22	99	136

Obs	FlightID	Dest	Depart	FClass	BClass	EClass	TotalPassengers
23	IA01802	SEA	15106	12	15	106	133
24	IA01804	SEA	15106	10	15	111	136
25	IA02901	HNL	15106	13	24	137	174
26	IA03100	ANC	15106	15	16	137	168
27	IA01802	SEA	15107	12	17	131	160
28	IA01804	SEA	15107	10	13	113	136
29	IA02901	HNL	15107	13	19	144	176
30	IA03100	ANC	15107	15	23	105	143

Table 1: Total Sum of Passengers in each flight

The above table states the total sum of passengers in each flight by summing up all the passenger counts from [BClass, FClass, EClass]. For example, if we take a sample with the flight ID = IA01802, there are 151 passengers boarded the flight.

## 1.2 Print passenger data where destination is = 'SEA'

Obs	FlightID	Dest	Depart	FClass	BClass	EClass
1	IA01802	SEA	15101	10	9	132
2	IA01804	SEA	15101	11	12	111
6	IA01802	SEA	15102	12	11	126
7	IA01804	SEA	15102	12	8	119
10	IA01802	SEA	15103	12	13	115
11	IA01804	SEA	15103	12	12	136

Obs	FlightID	Dest	Depart	FClass	BClass	EClass
14	IA01802	SEA	15104	10	18	128
15	IA01804	SEA	15104	11	17	105
19	IA01802	SEA	15105	11	14	131
20	IA01804	SEA	15105	11	18	104
23	IA01802	SEA	15106	12	15	106
24	IA01804	SEA	15106	10	15	111
27	IA01802	SEA	15107	12	17	131
28	IA01804	SEA	15107	10	13	113

Table 2: Passengers Travelling only to the destination = "SEA"

The above table lists only the flights travelling to the destination = "SEA" with passengers counts from BClass, FClass, and EClass.

### 1.3 Print passenger data where destination is = 'SEA' suppress observation column

FlightID	Dest	Depart	FClass	BClass	EClass
IA01802	SEA	15101	10	9	132
IA01804	SEA	15101	11	12	111
IA01802	SEA	15102	12	11	126
IA01804	SEA	15102	12	8	119
IA01802	SEA	15103	12	13	115
IA01804	SEA	15103	12	12	136
IA01802	SEA	15104	10	18	128

FlightID	Dest	Depart	FClass	BClass	EClass
IA01804	SEA	15104	11	17	105
IA01802	SEA	15105	11	14	131
IA01804	SEA	15105	11	18	104
IA01802	SEA	15106	12	15	106
IA01804	SEA	15106	10	15	111
IA01802	SEA	15107	12	17	131
IA01804	SEA	15107	10	13	113

*Table 3: Passenger Travelling to "SEA" without observation ID*

The above table lists only the flights travelling to the destination = "SEA" without the observation feature.

## Part – 2:

### Code Snippet:

```
libname data '/home/u63603566/Lab - 4';
```

```
/* Show personl data where State='NY' and JobCode in ('FA1' 'FA2' 'FA3') */
proc print data=data.personl;
where State = 'NY' and JobCode in ('FA1', 'FA2', 'FA3');
run;
```

```
/* Show personl data where Last Name has first two characters 'BR' */
proc print data=data.personl;
where substr(LName, 1, 2) = 'BR';
run;
```

### Results:

Obs	IDNum	LName	FName	City	State	Gender	JobCode	Salary	Birth	Hired	HPhone
4	1350	ARTHUR	BARBARA	NEW YORK	NY	F	FA3	32886	03SEP53	01AUG78	718/383-1549
18	1574	CAHILL	MARSHALL	NEW YORK	NY	M	FA2	28572	30APR48	23DEC80	718/383-2338
28	1988	COOPER	ANTHONY	NEW YORK	NY	M	FA3	32217	03DEC47	21SEP72	212/587-1228
31	1983	DEAN	SHARON	NEW YORK	NY	F	FA3	33419	03MAR50	30APR75	718/384-1647
35	1125	DUNLAP	DONNA	NEW YORK	NY	F	FA2	28888	11NOV56	14DEC75	718/383-2094
36	1475	EATON	ALICIA	NEW YORK	NY	F	FA2	27787	18DEC49	16JUL78	718/383-2828
39	1124	FIELDS	DIANA	WHITE PLAINS	NY	F	FA1	23177	13JUL46	04OCT78	914/455-2998
63	1113	JONES	LESLIE	NEW YORK	NY	F	FA1	22367	18JAN56	20OCT79	718/383-3003
75	1103	MCDANIEL	RONDA	NEW YORK	NY	F	FA1	23738	19FEB56	26JUL80	212/586-0013
82	1115	MURPHY	ALICE	NEW YORK	NY	F	FA3	32699	25AUG48	03MAR68	718/384-1982
95	1424	PATTERSON	RENEE	NEW YORK	NY	F	FA2	28978	07AUG57	14DEC77	212/587-8991
96	1132	PEARCE	CAROL	NEW YORK	NY	F	FA1	22413	02JUN60	25OCT81	718/384-1986
106	1116	RICHARDS	CASEY	NEW YORK	NY	F	FA1	22862	01OCT57	24MAR79	212/587-1224
115	1390	SMART	JONATHAN	NEW YORK	NY	M	FA2	27761	22FEB53	26JUN79	718/383-1141
129	1135	VEGA	ANNA	NEW YORK	NY	F	FA2	27321	23SEP48	03APR78	718/384-5913
130	1415	VEGA	FRANKLIN	NEW YORK	NY	M	FA2	28278	12MAR46	15FEB76	718/384-2823
134	1221	WALTERS	DIANE	NEW YORK	NY	F	FA2	27896	25SEP55	07OCT79	718/384-1918
143	1130	WOOD	DEBORAH	NEW YORK	NY	F	FA1	23916	19MAY59	08JUN80	212/587-0013
147	1122	YOUNG	JOANN	NEW YORK	NY	F	FA2	27956	04MAY51	30NOV76	718/384-2021

Figure 1: List of persons who's JOBCODE = [FA1,FA2,FA3], and State "NY"

The above figure displays data related to individuals whose job codes are in the category [FA1, FA2, FA3], and whose state is [NY].

Obs	IDNum	LName	FName	City	State	Gender	JobCode	Salary	Birth	Hired	HPhone
13	1658	BRADLEY	JEREMY	NEW YORK	NY	M	SCP	17943	11APR55	03MAR80	212/587-3622
14	1428	BRADY	CHRISTINE	STAMFORD	CT	F	PT1	68767	07APR58	19NOV79	203/781-1212
15	1782	BROWN	JASON	STAMFORD	CT	M	ME2	35345	07DEC58	25FEB80	203/781-0019
16	1244	BRYANT	LEONARD	NEW YORK	NY	M	ME2	36925	03SEP51	20JAN76	718/383-3334

Table 4: List of persons who's LNAME starts with "BR"

The above table lists the names of individuals whose names start with the letters [BR].

**Github Repository:** <https://github.com/ravinthiranpartheepan1407/SAS/tree/main/Task-4>