

Lab 4

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Exercise 1

```
*1;
%macro generate_sqr_table(start, end);
  data sqr_table;
    do n = &start to &end;
      Sqr_n = n*n;
      output;
    end;
  run;
  title "Table of Squared Values for Integers from &start to &end";
  proc print data=sqr_table noobs;
  run;
%mend;

%generate_sqr_table(10, 15);
```

Exercise 2

```
*2;
libname l "~/my_shared_file_links/u5338439";

%MACRO provtyp(string1, string2);
  title "Provider Type of the Provider";
  proc tabulate data=l.cms_providers_la;
    where provider_type contains &string1 or provider_type contains &string2;
    class provider_type;
    var beneficiary_average_age beneficiary_average_risk_score;
    table (beneficiary_average_age beneficiary_average_risk_score)*(n='N' mean='Mean'
std='Standard Deviation'),
      provider_type;
  run;
%MEND;

%provtyp("Anesthesiology", "Orthopedic Surgery");
```

Provider Type of the Provider

		Provider Type of the Provider	
		Anesthesiology	Orthopedic Surgery
Average Age of Beneficiaries	N	316	131
	Mean	70.72	71.78
	Standard Deviation	3.61	4.99
Average HCC Risk Score of Beneficiaries	N	316	131
	Mean	2.22	1.44
	Standard Deviation	0.81	0.46

Exercise 3

```
*3;
```

```
%macro my_macro(obs, var);
```

```
ods rtf file = "~/nonshare/sampleoutput.rtf" style=Journal;
```

```
title "Listing of Physicians";
```

```
proc print data=l.cms_providers_la (obs=&obs);
```

```
id npj;
```

```
var npes_provider_last_org_name npes_provider_first_name;
```

```
run;
```

```
title "Total Services by Provider Gender";
```

```
proc means data=l.cms_providers_la;
```

```
class npes_provider_gender;
```

```
var &var;
```

```
run;
```

```
ods rtf close;
```

```
proc contents data=l.cms_providers_la;
```

```
run;
```

```
%mend;
```

```
%my_macro(obs=10, var=beneficiary_average_risk_score);
```

Exercise 4

```
*4;
```

```
%macro my_macro(obs, var, name);
```

```
ods rtf file = "~/nonshare/&name._sampleoutput.rtf" style=Journal;
```

```
title "Listing of Physicians";
```

```
proc print data=L.cms_providers_la (obs=&obs);
id npi;
var nppes_provider_last_org_name nppes_provider_first_name;
run;
```

```
title "Total Services by Provider Gender";
proc means data=L.cms_providers_la;
class nppes_provider_gender;
var &var;
run;
ods rtf close;
```

```
proc contents data=L.cms_providers_la;
run;
%mend;
```

```
%my_macro(8, beneficiary_average_age, Beneficiary Mean Age);
```

Exercise 5

```
*5;
proc contents data=L.cms_providers_la;
run;
```

```
proc report data=L.cms_providers_la;
column provider_type total_drug_unique_benes total_drug_submitted_chrg_amt;
define provider_type/display group "Provider Type";
define total_drug_unique_benes/analysis sum "Total Number of Beneficiaries with Drug
Services" format=10.0;
define total_drug_submitted_chrg_amt/ analysis sum "Total Drug Submitted Charge Amount"
format=dollar12.2;
run;
```

Exercise 6

```
*6;
proc report data=L.cms_providers_la;
column provider_type npi total_drug_unique_benes total_drug_submitted_chrg_amt;
define provider_type/display group "Provider Type";
define npi / display "NPI";
define total_drug_unique_benes/analysis sum "Total Number of Beneficiaries with Drug
Services" format=10.0;
define total_drug_submitted_chrg_amt/ analysis sum "Total Drug Submitted Charge Amount"
format=dollar12.2;
break after provider_type / summarize;
run;
```

