



## Summary of Lesson 1: Essentials

---

### Running a SAS Program

- Programs can be submitted by clicking the **Run** icon or pressing the F3 key.
- To run a subset of a program, highlight the desired statements first. If you are using SAS Studio, click the **Run** icon or press F3. If you are using SAS Enterprise Guide, click the arrow next to **Run** and click **Run Selection** or press F3.
- A program can create a log, results, and output data.
- Submitting a program that has run previously in Enterprise Guide or SAS Studio replaces the log, output data, and results.
- Submitting a program that has run previously in the SAS windowing environment appends the log and results.

### Understanding SAS Syntax

- SAS programs consist of DATA and PROC steps, and each step consists of statements.

```
DATA ... ;  
    other statements  
RUN;
```

```
PROC ... ;  
    other statements  
RUN;
```

- Global statements are outside steps.

```
TITLE ... ;
```

```
OPTIONS ... ;
```

```
LIBNAME ... ;
```

- All statements end with a semicolon.
- Spacing doesn't matter in a SAS program.
- Unquoted values can be lowercase, upper case, or mixed case.

- Consistent program spacing is a good practice to make programs legible.
- Use the following automatic spacing features:

SAS Studio: Click the **Format Code** icon.

Enterprise Guide: Select **Edit > Format Code** or press Ctrl+I.

- Comments can be added to prevent text in the program from executing.
- Some common syntax errors are unmatched quotes, missing semicolons, misspelled keywords, and invalid options.
- Syntax errors might result in a warning or error in the log.
- Refer to the log to help diagnose and resolve syntax errors.

---

Copyright © 2022 SAS Institute Inc., Cary, NC, USA. All rights reserved.