What are the different types of variables that can be created using the create command in SPSS?

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The create command in SPSS allows for the creation of new variables in a dataset. There are several types of variables that can be created using this command, including numeric, string, date/time, and currency. Numeric variables are used for numerical data, such as age or income, and can be either continuous or discrete. String variables are used for non-numeric data, such as names or categories, and are limited to a certain number of characters. Date/time variables are used for recording dates and times, and can be formatted in various ways. Currency variables are used for monetary values and can be assigned a specific currency symbol. The create command in SPSS provides a versatile tool for creating and managing different types of variables in a dataset.

What kinds of new variables can I make with the create command? | SPSS FAQ

The create command has many functions that are useful for making new variables. Below is a list of these functions.

Function name	Action
CSUM	Cumulative sum
DIFF	Difference
FFT	Fast Fourier transform
IFFT	Inverse fast Fourier transform
LAG	Lag
LEAD	Lead
MA	Centered moving averages
PMA	Prior moving averages
RMED	Running medians
SDIFF	Seasonal difference
T4253H	Smoothing

?Let's use the hsb2 data set and make new

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**variables using some of these functions. We will start by deleting from
this data set some of the variables that we will not be using. After
making new variables, we will use
the list command to show the first few cases of the original and new variable.**

delete variables female ses schtyp prog read write math science.

We will start with the function for cumulative sum.

```
create v1 = csum(socst).
list socst v1
/cases from 1 to 7.
```

```
socst v1

57.00 57.00
61.00 118.00
31.00 149.00
56.00 205.00
61.00 266.00
61.00 327.00
```

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61.00 388.00

Number of cases read: 7 Number of cases listed: 7

The diff function can be used to create a variable with the difference
between values of the original variable. The degree of the difference must
be specified. In this example, we will make two new variables. The
first will be differenced once and the second, v3, will be differenced
twice.

```
create v2 = diff(socst, 1)
/v3 =diff(socst, 2).
list socst v2 v3
/cases from 1 to 7.
```

socst v2 v3

57.00 . .
61.00 4.00 .
31.00 -30.00 -34.00
56.00 25.00 55.00

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61.00 5.00 -20.00
61.00 .00 -5.00
61.00 .00 .00

Number of cases read: 7 Number of cases listed: 7

The lag function can be used to make variables with lags of various
lengths. The degree of lag must be specified. If a multiple
variables with a range of lagged values is desired, the end points of the lags
can be specified. In the first example, v4 contains the thrice
lagged values of socst. In the second example, three new variables
are made. The first, v5, contains the once lagged values of
socst; v6 contains the twice lagged values of socst; v7 is the same as v4.

```
create v4 = lag(socst, 3).
create v5 to v7 = lag(socst, 1, 3).
list socst v4 to v7
```

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/cases from 1 to 7.

socst v4 v5 v6 v7

57.00 . . . .
61.00 . 57.00 . .
31.00 . 61.00 57.00 .
56.00 57.00 31.00 61.00 57.00
61.00 61.00 56.00 31.00 61.00
61.00 31.00 61.00 56.00 31.00
61.00 56.00 61.00 61.00 56.00

Number of cases read: 7 Number of cases listed: 7

The lead function works just like the lag function. In this example, we use a lead of 2.

create v8 = lead(socst, 2).
list socst v8
/cases from 1 to 7.

socst v8

57.00 31.00
61.00 56.00

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31.00 61.00

56.00 61.00

61.00 61.00

61.00 36.00

61.00 51.00

Number of cases read: 7 Number of cases listed: 7

The create command can be combined with the split file command,
so that the functions operate within groups of cases. In the example
below, the lag function is used. As expected, the first case within
each level of the variable race is missing.

```
sort cases by race.
split file by race.
create v9 = lag(socst, 1).
split file off.
list race socst v9
/cases from 1 to 40.
```

race socst v9

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1.00 36.00 .
1.00 61.00 36.00
1.00 46.00 61.00
1.00 36.00 46.00
1.00 51.00 36.00
1.00 46.00 51.00
1.00 42.00 46.00
1.00 46.00 42.00
1.00 51.00 46.00
1.00 36.00 51.00
1.00 31.00 36.00
1.00 56.00 31.00
1.00 56.00 56.00
1.00 48.00 56.00
1.00 41.00 48.00
1.00 51.00 41.00
1.00 66.00 51.00
1.00 51.00 66.00
1.00 41.00 51.00
1.00 51.00 41.00
1.00 41.00 51.00
1.00 41.00 41.00
1.00 61.00 41.00
1.00 61.00 61.00

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2.00 41.00 .
2.00 56.00 41.00
2.00 46.00 56.00
2.00 41.00 46.00
2.00 56.00 41.00
2.00 51.00 56.00
2.00 56.00 51.00
2.00 71.00 56.00
2.00 36.00 71.00
2.00 51.00 36.00
2.00 56.00 51.00
3.00 61.00 .
3.00 51.00 61.00
3.00 56.00 51.00
3.00 56.00 56.00
3.00 31.00 56.00

Number of cases read: 40 Number of cases listed: 40

When the create command makes a new variable, it also labels that
variable. This is very useful if you are making many new variables.

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	Name	Type	Width	Decimals	Label
1	id	Numeric	9	2	
2	race	Numeric	9	2	
3	socst	Numeric	9	2	social studies s...
4	v1	Numeric	12	2	CSUM(socst)
5	v2	Numeric	10	2	DIFF(socst,1)
6	v3	Numeric	10	2	DIFF(socst,2)
7	v4	Numeric	9	2	LAGS(socst,3)
8	v5	Numeric	9	2	LAGS(socst,1)
9	v6	Numeric	9	2	LAGS(socst,2)
10	v7	Numeric	9	2	LAGS(socst,3)
11	v8	Numeric	9	2	LEADS(socst,2)
12	v9	Numeric	9	2	LAGS(socst,1)

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