


Listening 1: Ein Programm

```
int f(int x) {  
    if (x < 0) {  
        return f(-x) + 1;  
    }  
    if (x==0) {  
        return 0;  
    }  
    return f(x/10) + 1;  
}
```



```
void setup() {  
    Serial.begin(9600);  
    Serial.print(f(-42592));  
}
```

Globale Daten

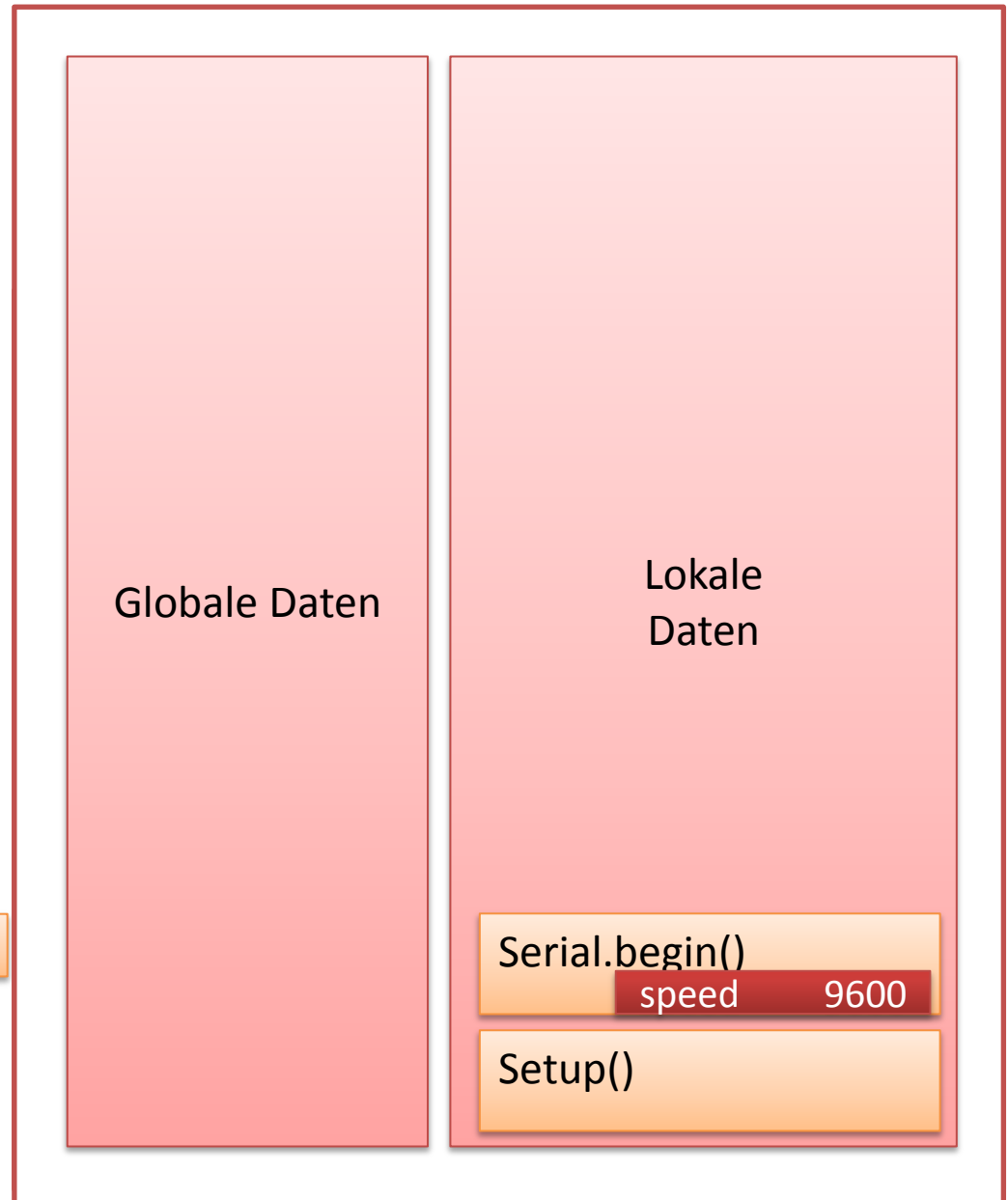
Lokale
Daten

Setup()

Listening 1: Ein Programm

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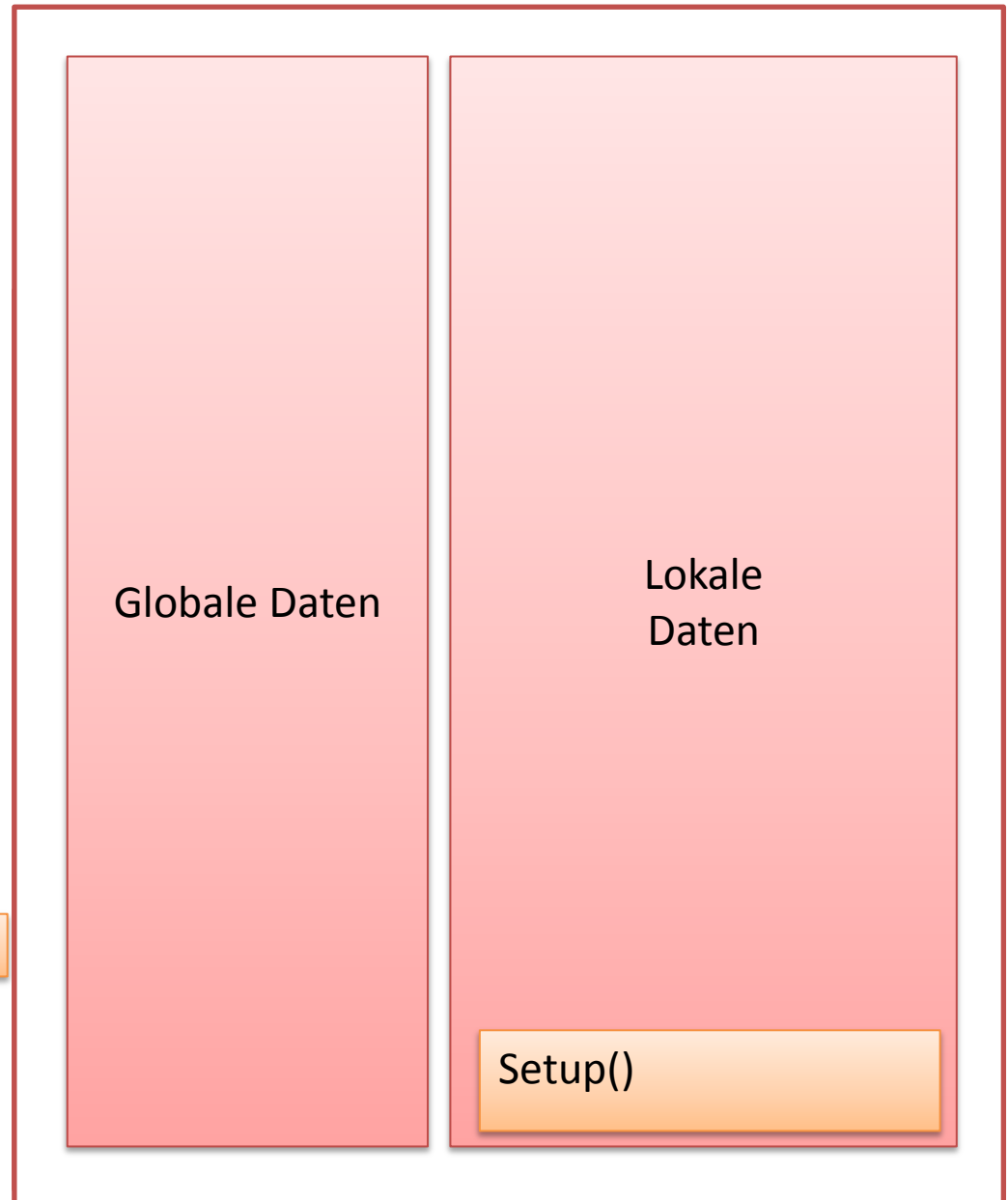
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void setup() {  
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}
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Listening 1: Ein Programm

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```

Globale Daten

Lokale
Daten


x -42592

Serial.print()

val -/-

Setup()

Listening 1: Ein Programm



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Globale Daten

Lokale
Daten

f()

x

-42592

Serial.print()

val

-/-

Setup()

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```

Globale Daten

Lokale
Daten

x 42592

f()


x -42592

Serial.print()

val -/-

Setup()

Listening 1: Ein Programm



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```

Globale Daten

Lokale
Daten

f()
x 42592

f()
x -42592

Serial.print()
val -/-

Setup()

Listening 1: Ein Programm

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```

Globale Daten

Lokale
Daten

x 4259


f()
x 42592

f()
x -42592

Serial.print()
val -/-

Setup()

Listening 1: Ein Programm



```
int f(int x) {  
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void setup() {  
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}
```

Globale Daten

Lokale

f()		
x		4259

f()		
x		42592

f()		
x		-42592

Serial.print()		
val		-/-

Setup()		
---------	--	--

Listening 1: Ein Programm

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    if (x < 0) {  
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        return 0;  
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    return f(x/10) + 1;  
}  
  
void setup() {  
    Serial.begin(9600);  
    Serial.print(f(-42592));  
}
```

Globale Daten

x 425

Lokale

f()

x 4259

f()

x 42592

f()


x -42592

Serial.print()

val -/-

Setup()

Listening 1: Ein Programm



```
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void setup() {  
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}
```

Globale Daten

f()
x 425

f()
x 4259

f()
x 42592

f()
x -42592

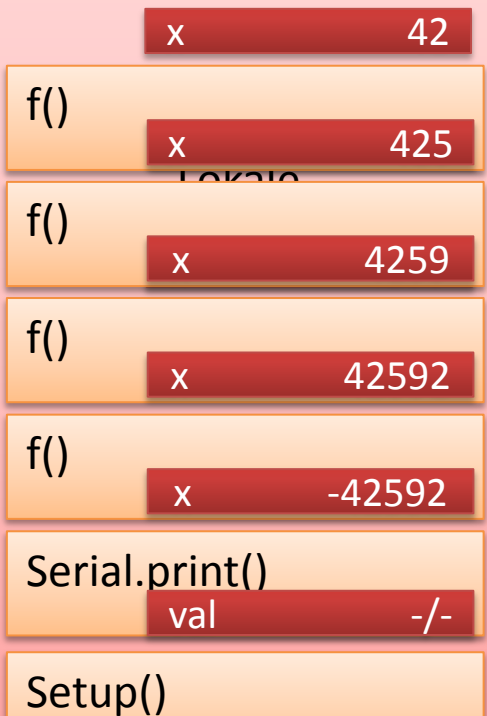
Serial.print()
val -/-

Setup()


Listening 1: Ein Programm

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int f(int x) {  
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Globale Daten



Listening 1: Ein Programm



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int f(int x) {  
    if (x < 0) {  
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    if (x==0) {  
        return 0;  
    }  
    return f(x/10) + 1;  
}  
  
void setup() {  
    Serial.begin(9600);  
    Serial.print(f(-42592));  
}
```

Globale Daten

f()	x	42
f()	x	425
f()	x	4259
f()	x	42592
f()	x	-42592
Serial.print()	val	-/-
Setup()		


Listening 1: Ein Programm

```
int f(int x) {  
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void setup() {  
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```

Globale Daten



Listening 1: Ein Programm



```
int f(int x) {  
    if (x < 0) {  
        return f(-x) + 1;  
    }  
    if (x==0) {  
        return 0;  
    }  
    return f(x/10) + 1;  
}  
  
void setup() {  
    Serial.begin(9600);  
    Serial.print(f(-42592));  
}
```

Globale Daten

f() x 4

f() x 42

f() x 425

f() x 4259

f() x 42592

f() x -42592

Serial.print()
val -/-

Setup()


Listening 1: Ein Programm

```
int f(int x) {  
    if (x < 0) {  
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Globale Daten



Listening 1: Ein Programm



```
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}  
  
void setup() {  
    Serial.begin(9600);  
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}
```

Globale Daten

f()	x	0
f()	x	4
f()	x	42
f()	x	425
f()	x	4259
f()	x	42592
f()	x	-42592
Serial.print()	val	-/-
Setup()		

Listening 1: Ein Programm

```
int f(int x) {  
    if (x < 0) {  
        return f(-x) + 1;  
    }  
    if (x==0) {  
        return 0;  
    }  
    return f(x/10) + 1;  
}  
  
void setup() {  
    Serial.begin(9600);  
    Serial.print(f(-42592));  
}
```

Globale Daten

f()	<return>	0
	x	0
f()	x	4
f()	x	42
f()	x	425
f()	x	4259
f()	x	42592
f()	x	-42592
Serial.print()	val	-/-
Setup()		

Listening 1: Ein Programm

```
int f(int x) {  
    if (x < 0) {  
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    return f(x/10) + 1;  
}  
  
void setup() {  
    Serial.begin(9600);  
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}
```

Globale Daten

f()	<return>	1
	x	4
f()	x	42
f()	x	425
f()	x	4259
f()	x	42592
f()	x	-42592
Serial.print()	val	-/-
Setup()		

Listening 1: Ein Programm

```
int f(int x) {  
    if (x < 0) {  
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    }  
    return f(x/10) + 1;  
}  
  
void setup() {  
    Serial.begin(9600);  
    Serial.print(f(-42592));  
}
```

Globale Daten

f()	<return>	2
	x	42
f()	x	425
f()	x	4259
f()	x	42592
f()	x	-42592
Serial.print()	val	-/-
Setup()		

Listening 1: Ein Programm

```
int f(int x) {  
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}  
  
void setup() {  
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```

Globale Daten

f()	<return>	3
	x	425
f()		
	x	4259
f()		
	x	42592
f()		
	x	-42592
Serial.print()		
	val	-/-
Setup()		

Listening 1: Ein Programm

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```

Globale Daten

Lokale

f()	<return>	4
	x	4259

f()	x	42592
-----	---	-------

f()	x	-42592
-----	---	--------

Serial.print()	val	-/-
----------------	-----	-----

Setup()

Listening 1: Ein Programm

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Globale Daten

Lokale
Daten

f()	<return>	5
	x	42592
f()	x	-42592
Serial.print()	val	-/-
Setup()		

Listening 1: Ein Programm

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Globale Daten

Lokale
Daten

f()	<return>	6
	x	-42592

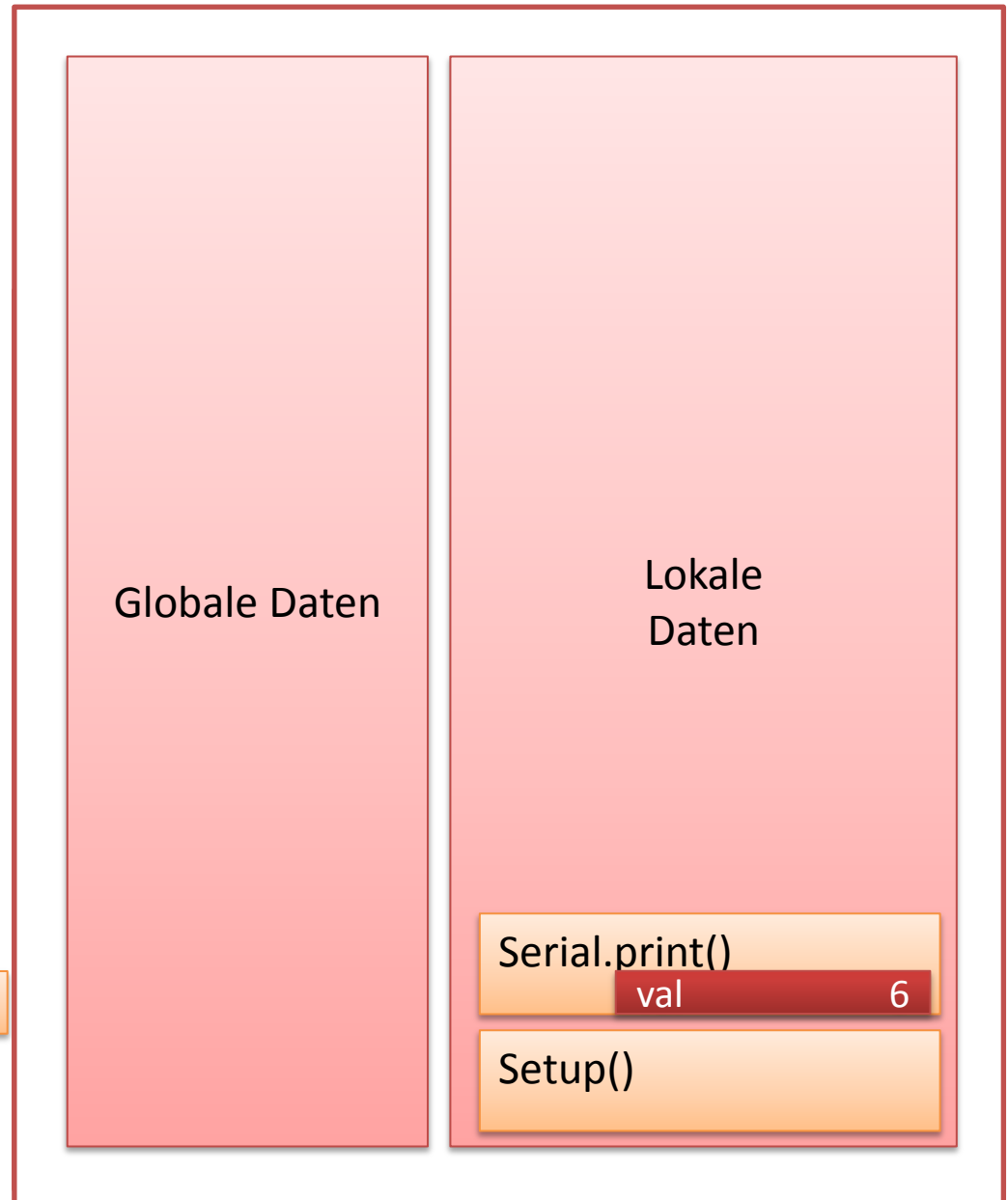
Serial.print()	val	-/-
----------------	-----	-----

Setup()

Listening 1: Ein Programm

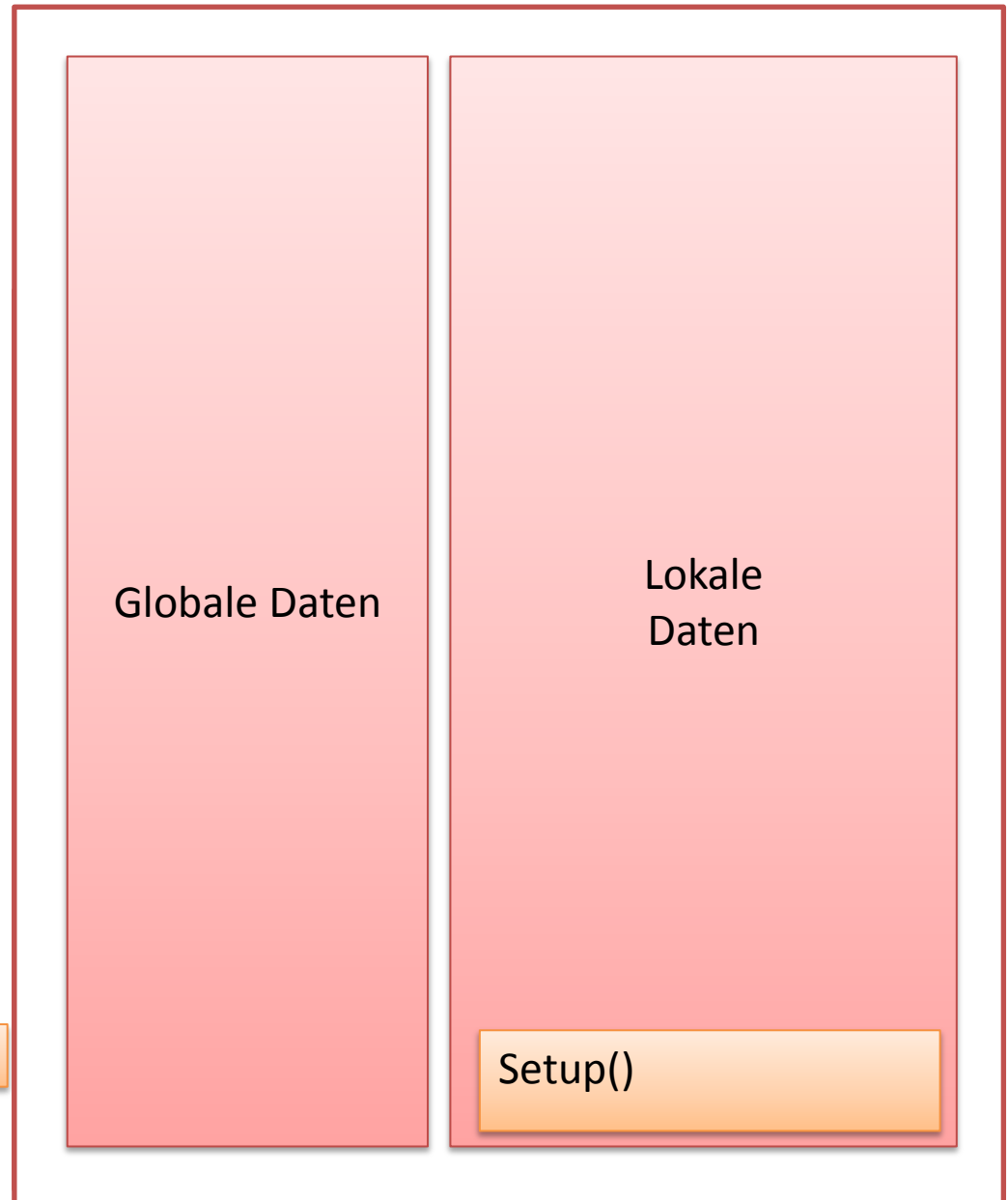
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The diagram illustrates the memory layout of a program. It consists of a large container with a red border, divided into two vertical sections. The left section is labeled 'Globale Daten' (Global Data) and the right section is labeled 'Lokale Daten' (Local Data). Both sections are represented by light red rectangles.

Globale Daten

Lokale
Daten