Set specific fill colors in ggplot2 by sign

Hi wanted to adjust the following chart so that the values below zero are filled in red and the ones above are in dark blue. How can I do this with ggplot2?

```
   mydata = structure(list(Mealtime = "Breakfast", Food = "Rashers", `2002` = 9.12,
                           `2003` = 9.5, `2004` = 2.04, `2005` = -20.72, `2006` = 18.37,
                           `2007` = 91.19, `2008` = 94.83, `2009` = 191.96, `2010` =
-125.3,
                           `2011` = -18.56, `2012` = 63.85), .Names = c("Mealtime",
"Food", "2002", "2003", "2004", "2005", "2006", "2007", "2008","2009", "2010", "2011",
"2012"), row.names = 1L, class = "data.frame")
x=ggplot(mydata) +
  aes(x=colnames(mydata)
[3:13],y=as.numeric(mydata[1,3:13]),fill=sign(as.numeric(mydata[1,3:13]))) +
  geom_bar(stat='identity') + guides(fill=F)
print(x)
```

r graphics formatting ggplot2

asked Oct 16 '12 at 8:13

Tahnoon Pasha
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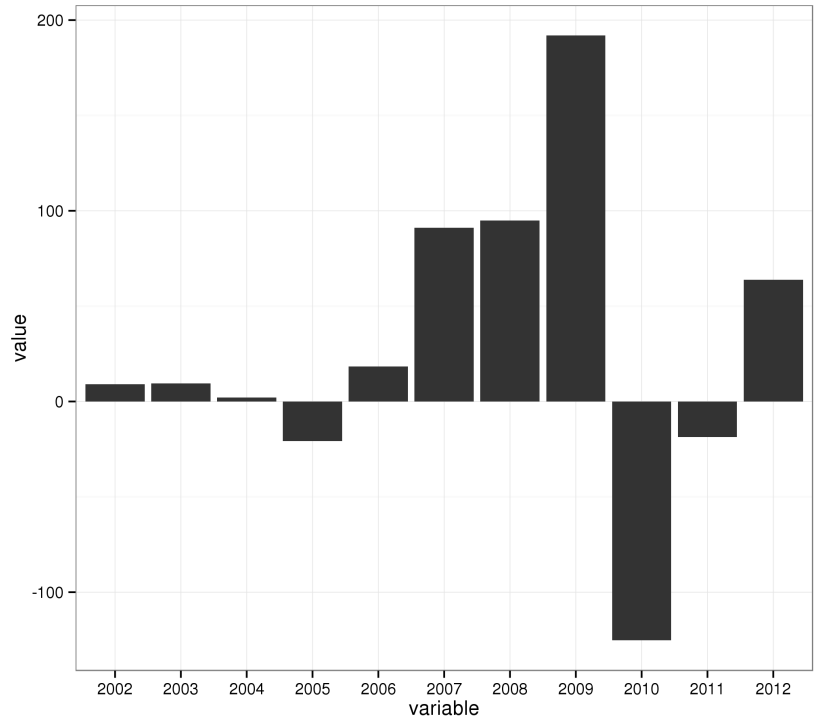
1 Answer

The way you structure your data is not how it should be in `ggplot2` :

```
require(reshape)
mydata2 = melt(mydata)
```

Basic barplot:

```
ggplot(mydata2, aes(x = variable, y = value)) + geom_bar()
```

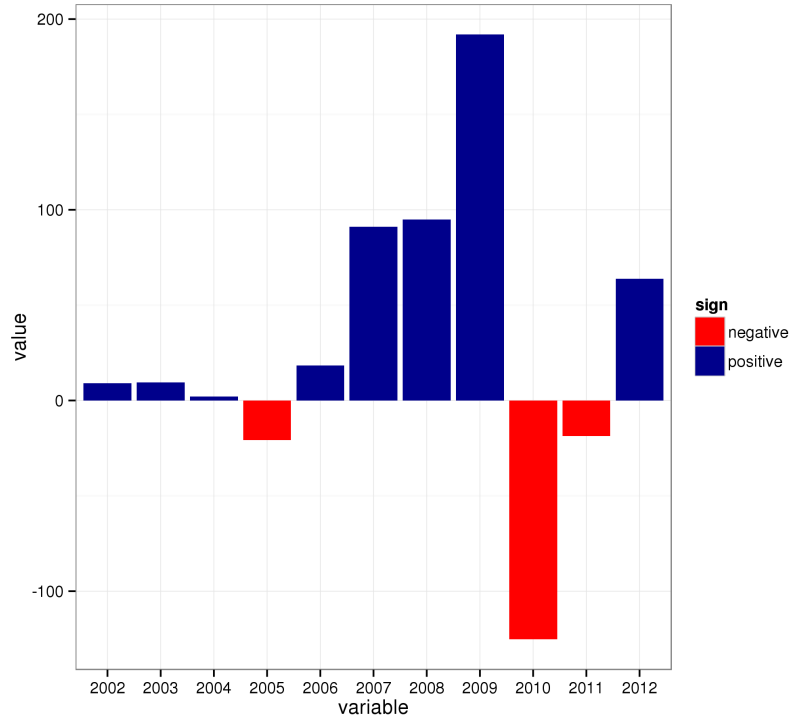


The trick now is to add an additional variable which specifies if the value is negative or postive:

```
mydata2[["sign"]] = ifelse(mydata2[["value"]] >= 0, "positive", "negative")
```

..and use that in the call to `ggplot2` (combined with `scale_fill_*` for the colors):

```
ggplot(mydata2, aes(x = variable, y = value, fill = sign)) + geom_bar() +
  scale_fill_manual(values = c("positive" = "darkblue", "negative" = "red"))
```



edited Oct 16 '12 at 8:55

answered Oct 16 '12 at 8:50

Paul Hiemstra
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1 Brilliant. Thank you. scale_fill_manual was what I was looking for. I take your point about melting and recasting the data. I was being lazy with the dput(). This still works with my clunkier code + `scale_fill_manual(values=c("1" = "dark blue","-1" = "red"))` but makes for much less accessible analysis. – Tahnoon Pasha Oct 16 '12 at 10:10

You normally do not use vectors as aesthetics. Aesthetics are a mapping of your variables (columns in a data.frame) to axes in the plot. – Paul Hiemstra Oct 16 '12 at 10:21