Bubble_plot using R

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Bubble Plot

```r
# Libraries
library(ggplot2)
library(dplyr)
```
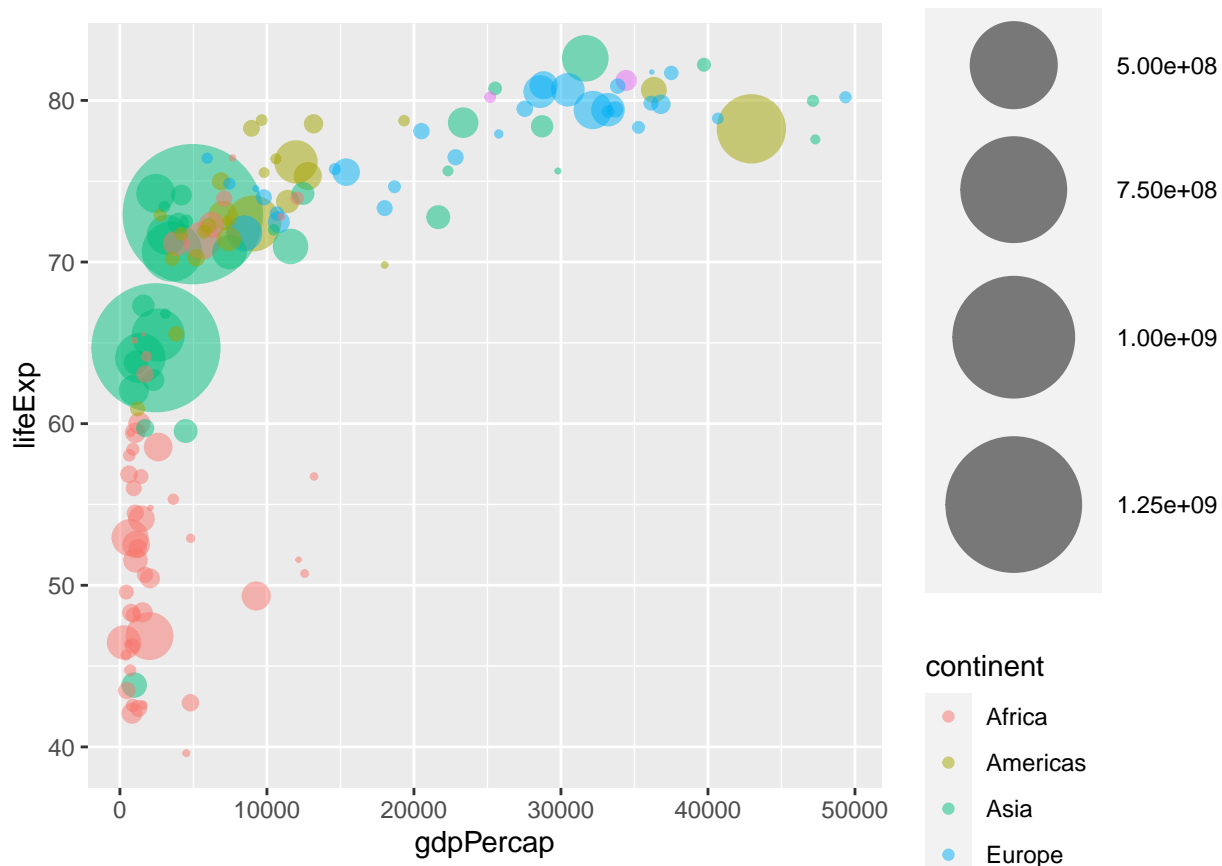
```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```r
# The dataset is provided in the gapminder library
library(gapminder)
data <- gapminder %>% filter(year=="2007") %>% dplyr::select(-year)

# Most basic bubble plot
data %>%
  arrange(desc(pop)) %>%
  mutate(country = factor(country, country)) %>%
  ggplot(aes(x=gdpPercap, y=lifeExp, size=pop, color=continent)) +
    geom_point(alpha=0.5) +
    scale_size(range = c(.1, 24), name="Population (M)")
```

```r
library(tidyverse)
```

```
## -- Attaching core tidyverse packages ----------------------- tidyverse 2.0.0 --
## v forcats   1.0.0      v stringr   1.5.0
## v lubridate 1.9.3      v tibble    3.2.1
## v purrr     1.0.2      v tidyr     1.3.0
## v readr     2.1.4
## -- Conflicts ----------------------------------------- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

```r
library(hrbrthemes)
```

```
## NOTE: Either Arial Narrow or Roboto Condensed fonts are required to use these themes.
##       Please use hrbrthemes::import_roboto_condensed() to install Roboto Condensed and
##       if Arial Narrow is not on your system, please see https://bit.ly/arialnarrow
```

```r
library(viridis)
```

```
## Loading required package: viridisLite
```

```r
library(kableExtra)
```

```
##
## Attaching package: 'kableExtra'
##
## The following object is masked from 'package:dplyr':
##
```

```
##       group_rows
options(knitr.table.format = "html")
library(plotly)
```

```
##
## Attaching package: 'plotly'
##
## The following object is masked from 'package:ggplot2':
##
##       last_plot
##
## The following object is masked from 'package:stats':
##
##       filter
##
## The following object is masked from 'package:graphics':
##
##       layout
library(gridExtra)
```

```
##
## Attaching package: 'gridExtra'
##
## The following object is masked from 'package:dplyr':
##
##       combine
library(ggrepel)
# Interactive version
p <- data %>%
  mutate(gdpPercap=round(gdpPercap,0)) %>%
  mutate(pop=round(pop/1000000,2)) %>%
  mutate(lifeExp=round(lifeExp,1)) %>%
  arrange(desc(pop)) %>%
  mutate(country = factor(country, country)) %>%
  mutate(text = paste("Country: ", country, "\nPopulation (M): ", pop, "\nLife Expectancy: ", lifeExp,
  ggplot( aes(x=gdpPercap, y=lifeExp, size = pop, color = continent, text=text)) +
    geom_point(alpha=0.7) +
    scale_size(range = c(1.4, 19), name="Population (M)") +
    scale_color_viridis(discrete=TRUE, guide=FALSE) +
    theme_ipsum() +
    theme(legend.position="right")

ggplotly(p, tooltip="text")
```

```
## Warning: The `guide` argument in `scale_*()` cannot be `FALSE`. This was deprecated in
## ggplot2 3.3.4.
## i Please use "none" instead.
## i The deprecated feature was likely used in the plotly package.
##   Please report the issue at <https://github.com/plotly/plotly.R/issues>.
## This warning is displayed once every 8 hours.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was
## generated.
```

```
## QStandardPaths: XDG_RUNTIME_DIR not set, defaulting to '/tmp/runtime-r2298252'
```

```
## TypeError: Attempting to change the setter of an unconfigurable property.
## TypeError: Attempting to change the setter of an unconfigurable property.
```