

Assignment 6

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```
library(ggmap)

## Loading required package: ggplot2
bude <- geocode("bude England UK")

## Information from URL : http://maps.googleapis.com/maps/api/geocode/json?address=bude%20England%20UK&
beach <- geocode(c("Summerleaze Beach Bude UK", "Crooklets Beach Bude UK"))

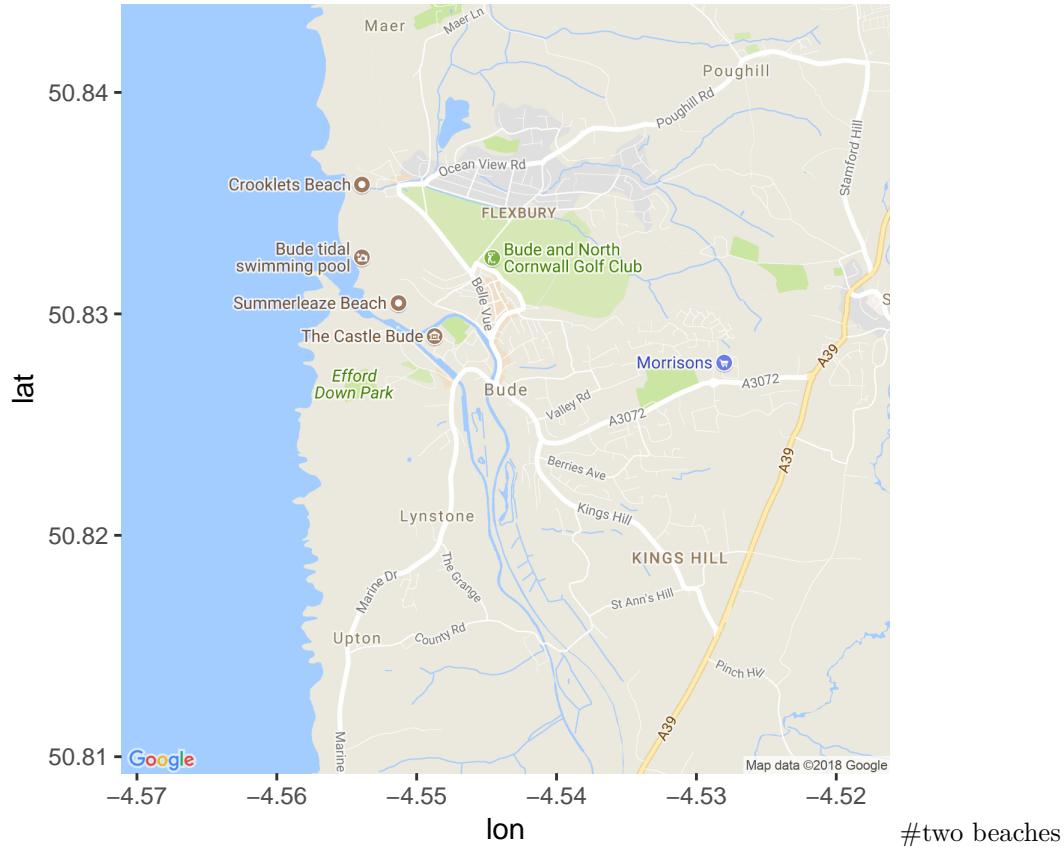
## Information from URL : http://maps.googleapis.com/maps/api/geocode/json?address=Summerleaze%20Beach%
## Information from URL : http://maps.googleapis.com/maps/api/geocode/json?address=Crooklets%20Beach%20
```

roadmap

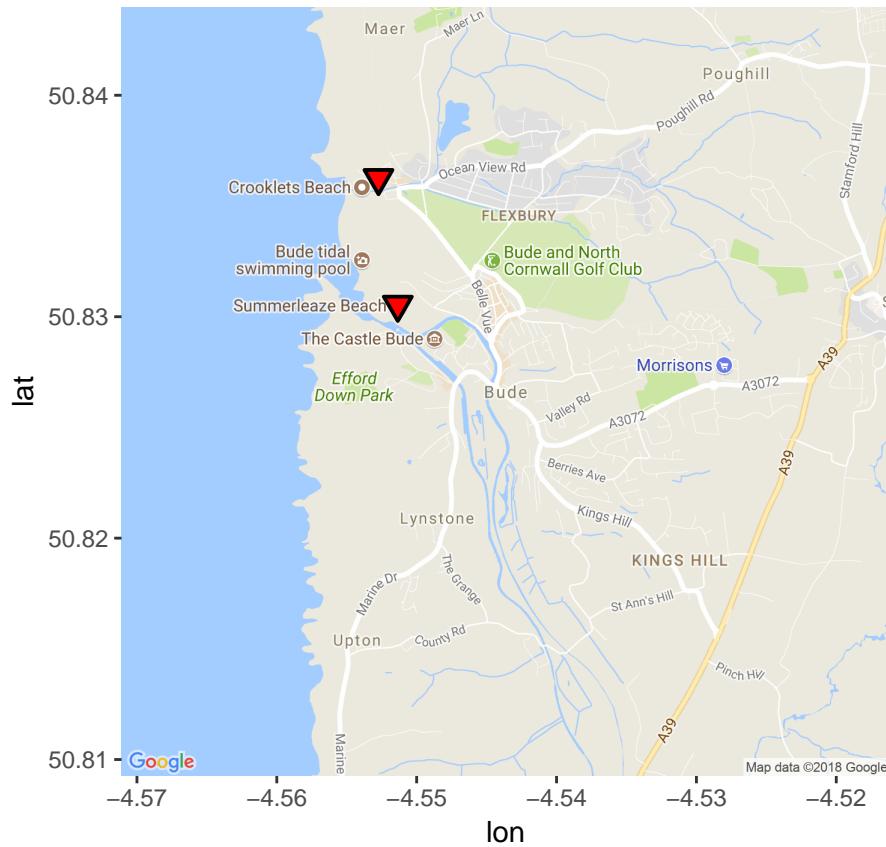
```
budemap <- get_map(bude, zoom=14, maptype="roadmap")

## Map from URL : http://maps.googleapis.com/maps/api/staticmap?center=50.826636,-4.543678&zoom=14&size=
```

ggmap(budemap)



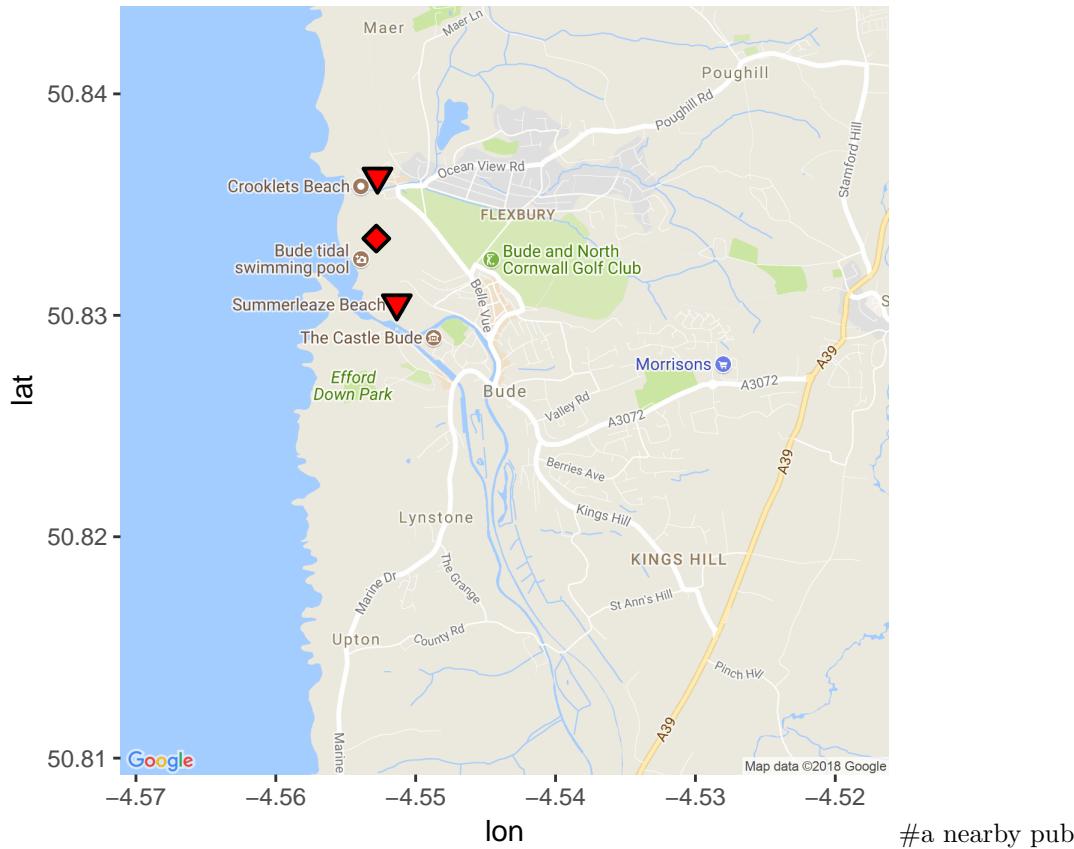
```
ggmap(budemap)+geom_point(
  aes(x=lon,y=lat),data=beach,fill="red",size=3,shape=25,stroke=1)
```



#cricket ground

```
cricket <- geocode("Cricket Club Bude UK")
```

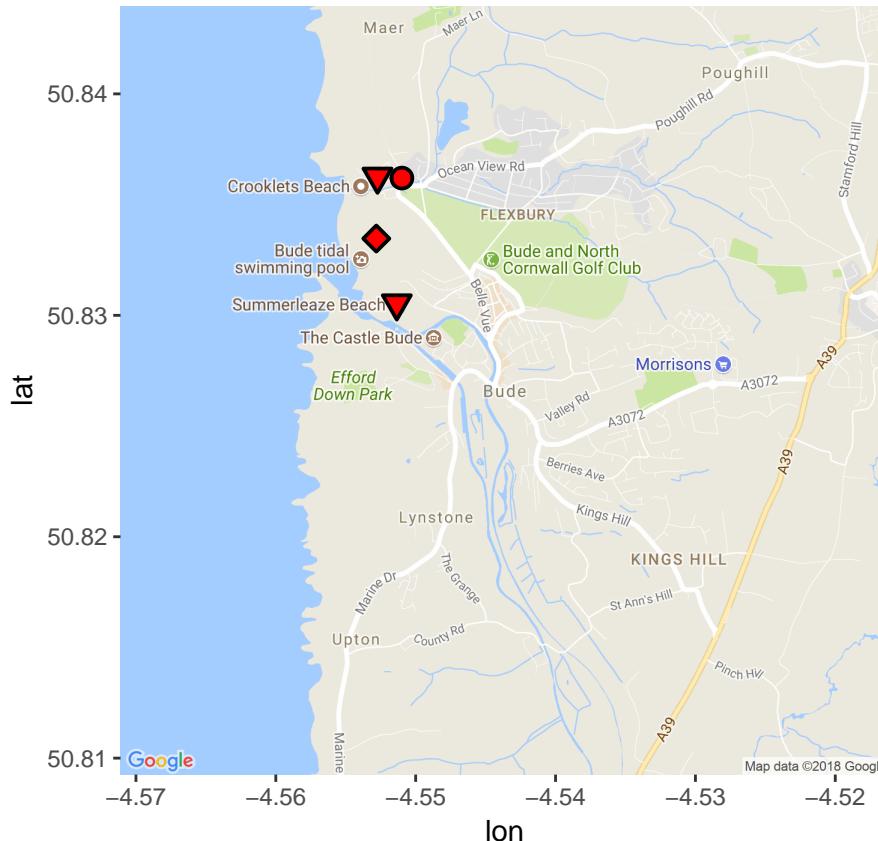
```
## Information from URL : http://maps.googleapis.com/maps/api/geocode/json?address=Cricket%20Club%20Bude
ggmap(budemap)+geom_point(
  aes(x=lon,y=lat),data=beach,fill="red",size=3,shape=25,stroke=1)+geom_point(
  aes(x=lon,y=lat),data=cricket,fill="red",size=3,shape=23,stroke=1)
```



#a nearby pub

```
pub <- geocode("Crooklets Inn Bude UK")
```

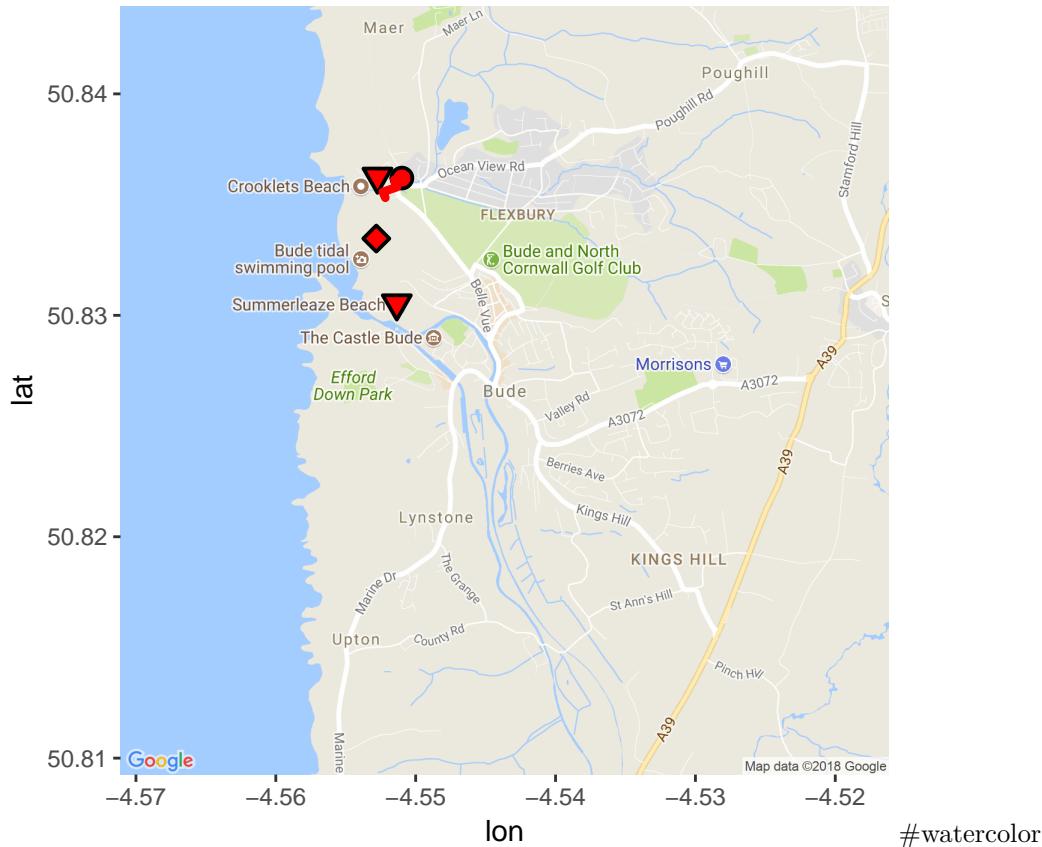
```
## Information from URL : http://maps.googleapis.com/maps/api/geocode/json?address=Crooklets%20Inn%20Bude%20UK
ggmap(budemap)+geom_point(
  aes(x=lon,y=lat),data=beach,fill="red",size=25,stroke=1)+geom_point(
    aes(x=lon,y=lat),data=cricket,fill="red",size=3,shape=23,stroke=1)+geom_point(
      aes(x=lon,y=lat),data=pub,fill="red",size=3,shape=21,stroke=1)
```



#route from cricket ground to the pub

```
from <- "Cricket Club Bude UK"
to <- "Crooklets Inn Bude UK"
route <- route(from,to,structure="route")
```

```
## Information from URL : http://maps.googleapis.com/maps/api/directions/json?origin=Cricket+Club+Bude+
ggmap(budemap)+geom_point(
  aes(x=lon,y=lat),data=beach,fill="red",size=3,shape=25,stroke=1)+geom_point(
    aes(x=lon,y=lat),data=cricket,fill="red",size=3,shape=23,stroke=1)+geom_point(
      aes(x=lon,y=lat),data=pub,fill="red",size=3,stroke=1)+geom_path(
        aes(x = lon, y = lat), colour = "red", size = 1.5,
        data = route, lineend = "round"
  )
```



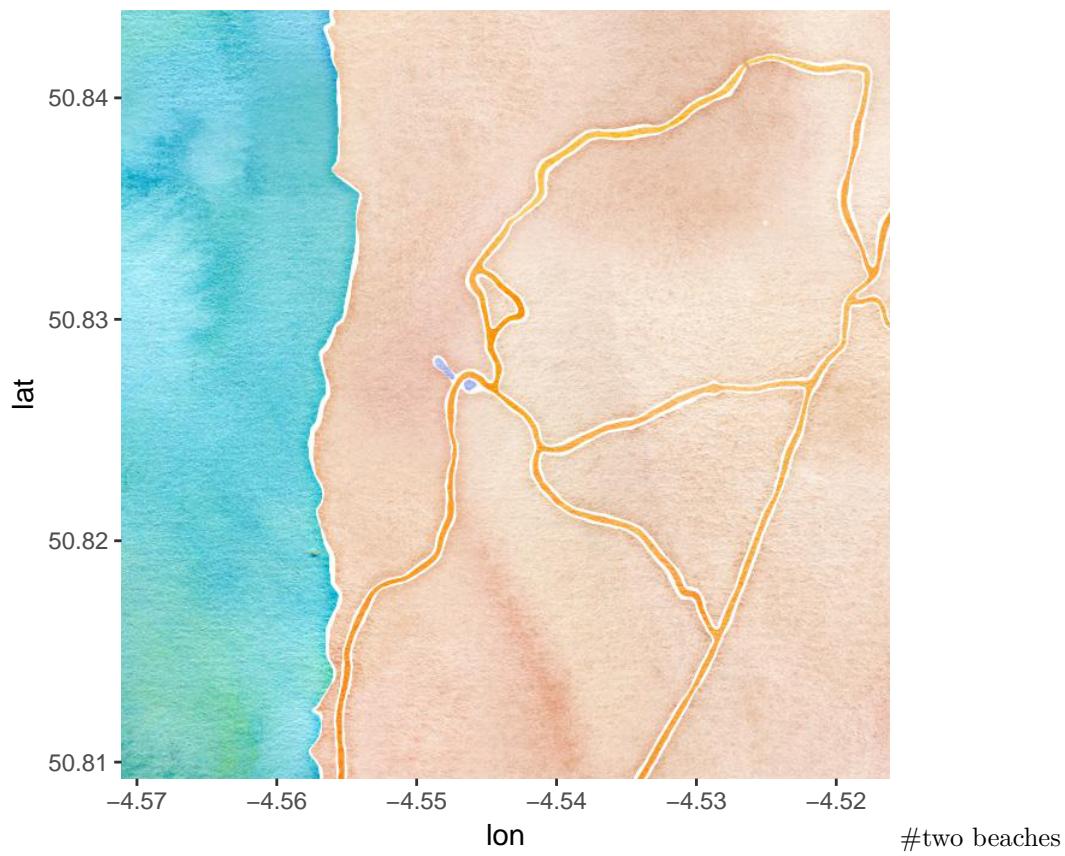
```

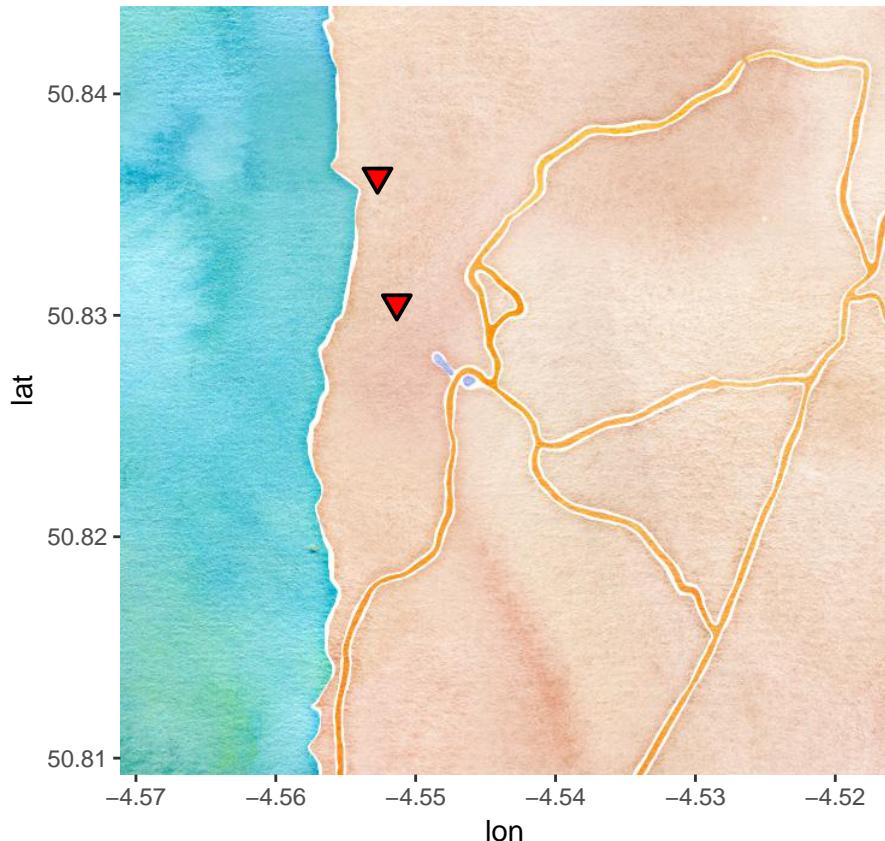
budemap1 <- get_map(bude, zoom=14, maptype="watercolor")

## maptype = "watercolor" is only available with source = "stamen".
## resetting to source = "stamen"...

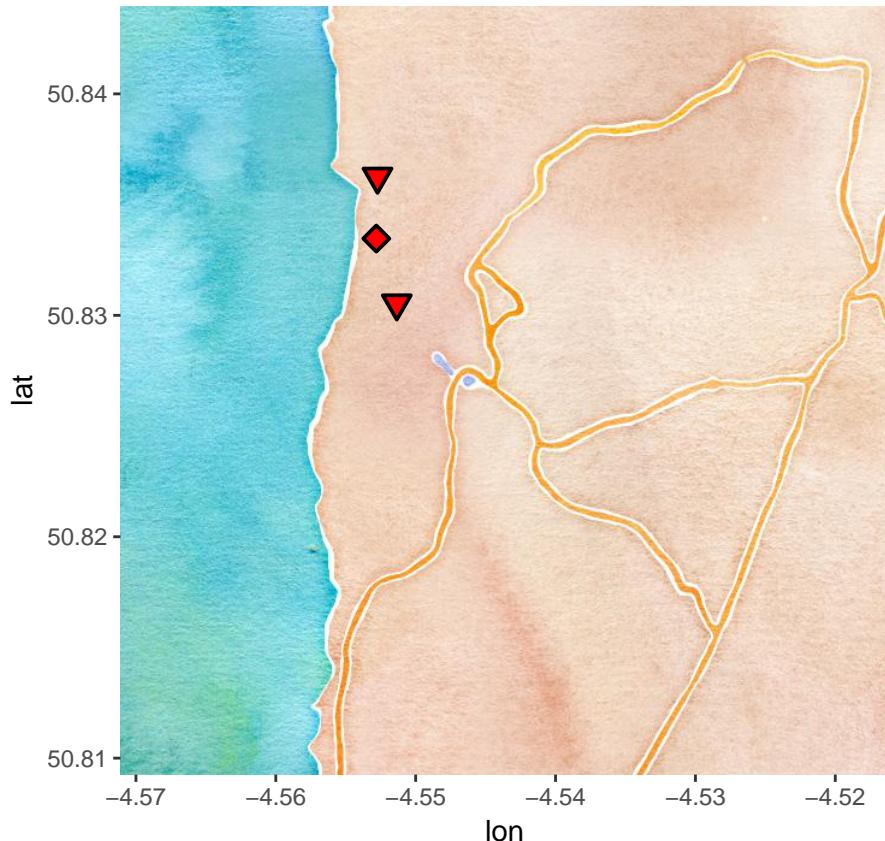
## Map from URL : http://maps.googleapis.com/maps/api/staticmap?center=50.826636,-4.543678&zoom=14&size
## Map from URL : http://tile.stamen.com/watercolor/14/7983/5496.jpg
## Map from URL : http://tile.stamen.com/watercolor/14/7984/5496.jpg
## Map from URL : http://tile.stamen.com/watercolor/14/7985/5496.jpg
## Map from URL : http://tile.stamen.com/watercolor/14/7986/5496.jpg
## Map from URL : http://tile.stamen.com/watercolor/14/7983/5497.jpg
## Map from URL : http://tile.stamen.com/watercolor/14/7984/5497.jpg
## Map from URL : http://tile.stamen.com/watercolor/14/7985/5497.jpg
## Map from URL : http://tile.stamen.com/watercolor/14/7986/5497.jpg
## Map from URL : http://tile.stamen.com/watercolor/14/7983/5498.jpg
## Map from URL : http://tile.stamen.com/watercolor/14/7984/5498.jpg
## Map from URL : http://tile.stamen.com/watercolor/14/7985/5498.jpg
## Map from URL : http://tile.stamen.com/watercolor/14/7986/5498.jpg
ggmap(budemap1)

```





```
cricket <- geocode("Cricket Club Bude UK")  
## Information from URL : http://maps.googleapis.com/maps/api/geocode/json?address=Cricket%20Club%20Bude  
ggmap(budemap1)+geom_point(  
  aes(x=lon,y=lat),data=beach,fill="red",size=25,stroke=1)+geom_point(  
  aes(x=lon,y=lat),data=cricket,fill="red",size=3,stroke=1)
```



#a nearby pub

```
pub <- geocode("Crooklets Inn Bude UK")
```

```
## Information from URL : http://maps.googleapis.com/maps/api/geocode/json?address=Crooklets%20Inn%20Bude%20UK
ggmap(budemap1)+geom_point(
  aes(x=lon,y=lat),data=beach,fill="red",size=25,stroke=1)+geom_point(
    aes(x=lon,y=lat),data=cricket,fill="red",size=3,stroke=1)+geom_point(
      aes(x=lon,y=lat),data=pub,fill="red",size=3,stroke=1)
```

