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library(ggplot2)
library(splines)
Sys.setlocale("LC_TIME", "C")
d <- scan('lesson8.txt',sep='\n',what=list("",""))
df <- data.frame('date'=as.character(c(d[1],recursive=TRUE)),
                'ip'=as.numeric(c(d[2],recursive=TRUE)),
                'pv'=as.numeric(c(d[3],recursive=TRUE)))

head(df)
qplot(ip, pv, data = df, geom = c("point", "smooth"),
      method = "lm")
qplot(as.Date(strptime(as.character(df$date), "%a %b %d")), pv/ip,
      data = df, geom = c("line", "point", "smooth"), method="lm", main="
每个 IP 平均 pv", xlab = "日期", ylab = "pv/ip")

qplot(as.Date(strptime(as.character(df$date), "%a %b %d")), pv,
      data = df, geom = c("line", "point", "smooth"),
      method="lm", main="pv 量趋势图", xlab = "日期", ylab = "pv")

```

图 1: ip 与 pv 关系图

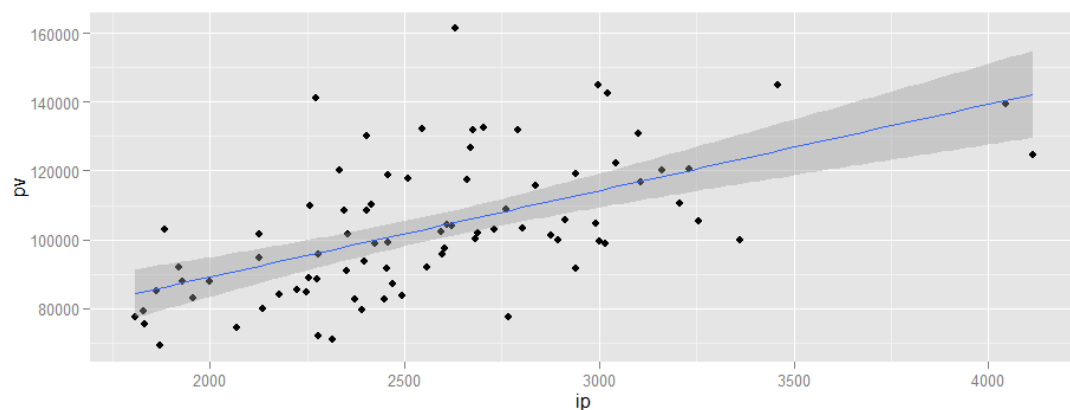


图 2: ip 平均 pv 时序图

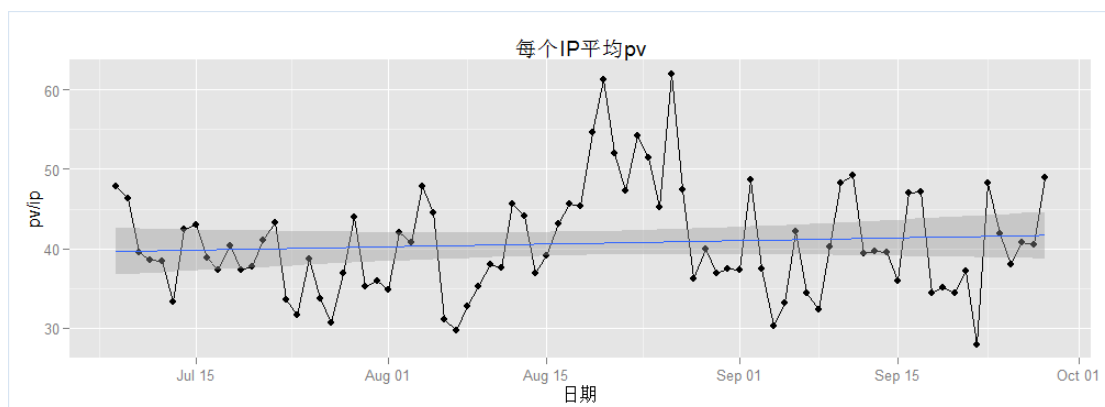


图 3: ipv 时序图

