```
library(tidyverse)
library(caret)
library(rvest)

data("BostonHousing2")
glimpse(BostonHousing2)
```

```
# split data 80% to train model, 20% to test model

set.seed(55)
n <- nrow(BostonHousing2)
id <- sample(1:n,size = n*0.8)
train_data <- BostonHousing2[id,]
test_data <- BostonHousing2[-id,]
```

```
# train data in Linear Regression , glmnet and K-Nearest Neighbors

ctrl <- trainControl(method = "cv",
                     number = 5,
                     verboseIter = T)
lm_model <- train( cmedv ~ .,
                   data = train_data,
                   method = "lm",
                   trControl = ctrl)
grid = expand.grid(alpha = c(0,1),
                   lambda = seq(0,1,0.005))
glmnet_model <- train( cmedv ~ .,
                   data = train_data,
                   method = "glmnet",
                   trControl = ctrl,
                   trGrid = grid)
knn_model <- train( cmedv ~ .,
                    data = train_data,
                   method = "knn",
                    trControl = ctrl)
```

```
# prediction model

summary(lm_model)

lm_predicted <- predict(lm_model,newdata = test_data)
glmnet_predicted <- predict(glmnet_model,newdata = test_data)
knn_predicted <- predict(glmnet_model,newdata = test_data)
```

```
#evaluate model
RMSE(lm_predicted,test_data$cmedv)
RMSE(glmnet_predicted,test_data$cmedv)
RMSE(knn_predicted,test_data$cmedv)
```