```
> set.seed(1, sample.kind = 'Rounding')
Warning message:
In set.seed(1, sample.kind = "Rounding") :
  non-uniform 'Rounding' sampler used
> Sigma <- matrix(c(1.0, 0.75, 0.75, 0.75, 1.0, 0.25, 0.75, 0.25, 1.0), 3, 3)
> dat <- MASS::mvrnorm(n = 100, c(0, 0, 0), Sigma) %>%
+ data.frame() %>% setNames(c("y", "x_1", "x_2"))
> dim(dat)
[1] 100   3
> head(dat)
           y         x_1         x_2
1 -0.54335401 -0.15627188 -0.91606278
2  0.48203339 -0.07151714 -0.01993594
3 -0.53913301 -0.27408300 -1.38972961
4  1.51064005  1.18876647  1.38231139
5 -0.08352236  0.91504731  0.11334813
6 -0.36165800 -2.00447523  0.16000079
> cor(dat)
           y       x_1       x_2
y   1.0000000 0.7287301 0.7096290
x_1 0.7287301 1.0000000 0.1890924
x_2 0.7096290 0.1890924 1.0000000
>
>
> set.seed(1, sample.kind = 'Rounding')
Warning message:
In set.seed(1, sample.kind = "Rounding") :
  non-uniform 'Rounding' sampler used
> test_index <- createDataPartition(dat$y, times = 1, p = 0.5, list = FALSE)
> train_set <- dat %>% slice(-test_index)
> test_set <- dat %>% slice(test_index)
> fit <- lm(y ~ x_1, data = train_set)
> y_hat <- predict(fit, newdata = test_set)
> sqrt(mean((y_hat-test_set$y)^2))
[1] 0.600666
>
> fit <- lm(y ~ x_2, data = train_set)
> y_hat <- predict(fit, newdata = test_set)
> sqrt(mean((y_hat-test_set$y)^2))
[1] 0.630699
>
> fit <- lm(y ~ x_1 + x_2, data = train_set)
> y_hat <- predict(fit, newdata = test_set)
> sqrt(mean((y_hat-test_set$y)^2))
[1] 0.3070962
>
```