```
final_model <- lm(y~X1+X3)

vcov(final_model)
```

output:

```
> vcov(final_model)
             (Intercept)           X1           X3
(Intercept)  9.723427e-06  4.118650e-08 -2.605904e-08
X1           4.118650e-08  1.072568e-05 -9.299632e-08
X3          -2.605904e-08 -9.299632e-08  9.447251e-06
```

```
covMatrix <- matrix(c(9.723427e-06 ,4.118650e-08,-2.605904e-08,4.118650e-08,1.072568e-05,-9.299632e-08,-2.605904e-08,-9.299632e-08,9.447251e-06),nrow=3,ncol=3,byrow=TRUE)

covMatrix

cov2cor(covMatrix)
```

output:

```
> cov2cor(covMatrix)
           [,1]        [,2]        [,3]
[1,]  1.000000000  0.004033042 -0.002718917
[2,]  0.004033042  1.000000000 -0.009238482
[3,] -0.002718917 -0.009238482  1.000000000
```

Hence the correlation between W1,W2 = -0.010 !!