Assignments on Support Vector Machine and Decision Tree using r2 value

1)Multiple Linear Regression R2 Value = 0.935868

2) Support Vector Machine:

No	Hyper Parameter	Linear (r value)	Poly (r value)	RBF (Non-Linear) (r value)	Sigmoid (r value)
1.	C=10	-0.039651	-0.053673	-0.568140	-0.054726
2.	C=100	0.106458	-0.019808	0.050732	-0.030465
3.	C=1000	0.780290	0.266159	0.006761	0.185073
4.	C=2000	0.876778	0.480994	0.675088	0.397064
5.	C=3000	0.895681	0.637000	0.123220	0.591364
6	C=5000	0.900380	0.793653	0.212423	0.730642

The best r2 Value for Support Vector Machine is Linear and hyper tuning parameter (C=5000) = 0.0900380

3) Decision Tree Regression

No	CRITERION	SPLITTER	R2 VALUE
1.	Squared_Error	Best	0.92846
2.	Squared Error	Random	0.84644
3.	Friedman_mse	Best	0.91194
4.	Friedman_mse	Random	0.72163
5.	Absolute_error	Best	0.95604
6.	Absolute_error	Random	0.85719
7.	Poisson	Best	0.90354
8.	Poisson	Random	0.92932

The best R2 Value for Decision Tree Regression is Citerion and Splitter hyper tuning Parameter = 0.95604