

STAT5103 Assignment 3 (Due date: Friday Nov 9, 11:59pm) [Provide all your R-code]

Data: Car Mark Data (first column is car type, second to last column are X variables). The data are averaged marks for 23 car types from a sample of 40 persons. The marks range from 1 (very good) to 6 (very bad).

*Variables*

- $X_1$ : Economy
- $X_2$ : Service
- $X_3$ : Non-depreciation of value
- $X_4$ : Price, Mark 1 for very cheap cars
- $X_5$ : Design
- $X_6$ : Sporty car
- $X_7$ : Safety
- $X_8$ : Easy handling

Apply PCA to the data.