Regression: Bike sharing case[1]

Introduction

Bike sharing system has become a successful transportation alternative in big cities. Traffic problems, environmental awareness, and health/sport culture have contributed to the fast development of the system.

In this case, you will analyse the use of a bike sharing system quantified as the number of rented bikes at a specific moment along a two-year historical data (years 2011 and 2012) . Your prediction will be based on temporal and climatic features which can affect the rental behaviors.

Target Class:

The target attribute is an integer number and corresponds to the number of bikes used at a given time.

Attributes Information:

id	Attribute type	Attribute	Description/Values
1	Id	instant	record index
2	Temporal	dteday	Date of the observation
3		season	1:winter, 2:spring, 3:summer, 4:fall
4		yr	year (0: 2011, 1:2012)
5		mnth	month (1 to 12)
6		hr	hour (0 to 23)
7		holiday	weather day is holiday or not
8		weekday	day of the week
9		workingday	if day is neither weekend nor holiday is 1, otherwise is 0.
10	Climate	weathersit	1: Clear, Few clouds, Partly cloudy, Partly cloudy 2: Mist + Cloudy, Mist + Broken clouds, Mist + Few clouds, Mist 3: Light Snow, Light Rain + Thunderstorm + Scattered clouds, Light Rain + Scattered clouds 4: Heavy Rain + Ice Pallets + Thunderstorm + Mist, Snow + Fog
11		temp	Normalized temperature in Celsius
12		atemp	Normalized feeling temperature in Celsius
13		hum	Normalized humidity
14		windspeed	Normalized wind speed
15	Target	cnt	ount of total rental bikes