Bike Rental Demand Prediction

You are provided hourly rental data spanning two years (2011 and 2012) for a Bike Rental store.

The fields in ***Bike Rental Dataset.csv*** are:

* datetime – hourly date and timestamp
* season
  + 1: Spring
  + 2: Summer
  + 3: Fall
  + 4: Winter
* holiday - whether the day is considered a holiday
* workingday - whether the day is neither a weekend nor a holiday
* weather
  + 1: Clear, Few clouds, 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 + Hail + Thunderstorm + Mist, Snow + Fog
* temp - temperature in Celsius (standardised)
* atemp - "feels like" temperature in Celsius (standardised)
* humidity - relative humidity (standardised)
* windspeed - wind speed (standardised)
* count - number of total rentals

**Questions**:

1. Predict the total count of bikes rented during each hour for the week commencing on 24th December 2012 (dataset contains the predictions for the independent variables like weather, temperature, humidity, windspeed etc.)
2. Predict whether high demand will occur within 7 days

Please provide some brief documentation describing your analysis, approach and findings. Any format is OK (e.g., word doc, Jupyter notebook). We’re looking for quality, not quantity.