

# Christmas Light Viewing Program

Project Report  
George Mason University  
SWE 632

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## **Description:**

The project is designed as a web application software to help people find streets and homes with interesting Christmas lights. Users can add new Christmas light location and also give their reviews for the existing locations on the application.

## **Development Tools:**

The application is developed as a Java Dynamic Web Application using Eclipse IDE. The User Interface is developed using HTML5, CSS, Bootstrap Framework, JavaScript, JQuery and Ajax. Google Maps API is used for developing interface and features of maps. The back-end development is done using Spring (MVC) framework in java. JSP is used as middleware between front-end and back-end. MySQL relational database is used in a database tier.

## **Using Project:**

The application consists of three main functionalities:

1. Search for the Location where you want to view Christmas Lights
2. View details about the existing locations and get directions on map to visit that location.
3. Add a new location with interesting Christmas Lights

Each of these functionalities and its use is described below:

1. Searching the desired location/area/region where you want to view Christmas Lights
  - By default map displays your current location and its vicinity.
    - You can zoom in and zoom out of the map to view smaller or larger portions of the map.
  - The map displays all the existing Christmas Lights locations with different icons.
    - The icons are displayed according to the rating of the location.

- 'Search Location' search box on dashboard enable you to search for any location/region around the globe.
  - The searched location is displayed on the map with the view of existing Christmas Lights locations in its vicinity.
  - You can zoom in or zoom out of the map to view smaller or larger portions of the map in the vicinity of your searched location.
- 2. Viewing details about the existing locations and get directions on map to visit that location
  - You can click on any desired location's icon on the map to view details about that Christmas Light location.
    - On clicking the icon, a modal box is displayed with the following features:
      - The complete address of that location
      - 'Get Direction' button to navigate to that location
      - Photos of that location
      - 'Add Photos' button to add more photos (if you have visited this location earlier) of that location.
      - Reviews of that location
      - 'Add Reviews' button to add reviews (if you have visited this location earlier) of that location.
- 3. Adding a new location with interesting Christmas Lights
  - 'Add New Location' button on the Dashboard enables you to add new location which you have visited before to share it with other users.
  - On clicking 'Add New Location' button, a modal box is displayed with the form asking few details about the location as follows:
    - Street Address: (This is required field)  
Enter the complete address of the location.
    - Add Images: (This is optional field)  
You can browse your computer and add images of this location.
    - Rating: (This is required field)  
You can rate the location by selecting the proper radio button.  
Ratings available are: Amazing (3 stars), Good (2 stars) and Not so good (1 star).
    - Review: (This is optional field)  
You can write review for this location.

## Software Design:

- Christmas Light Viewing Program software is designed considering KISS principle of UI design.
- This software is an SDI application and mainly aims to attract novice and intermittent users.
- The design aims to reduce '*Time to Learn*' for users by using their intuitive and semantic knowledge and implementing most commonly used functionalities (Maps).
- The software is designed with minimal user inputs (as less as two button clicks to visit the desired Christmas Light location.)

## Note:

- The functionalities which are not working are:
  - 'Get Direction' (To navigate from your current location to the desired Christmas Light location)
  - 'Add Photos' (To add photos for the desired location)
- Problems faced with some functionalities are:
  - Reviews are not displayed for each different location, though reviews can be added (review is successfully added to database for the desired location) but cannot be retrieved from database and displayed in the modal box for the desired location.

So, for now I have hardcoded this value (the desired location value) to retrieve reviews as '4400, University Drive, George Mason University, Fairfax'. Thus, you can use the 'Add Reviews' functionality for this particular location.

(Click on the icon for George Mason University location on map. To view GMU location icon on map you can search for Vienna/Fairfax/George Mason University in 'Search Location' box on dashboard *or* zoom out the map if you are at far distance from GMU to view this location's icon.)