

**SOFTWARE REQUIREMENT SPECIFICATION  
(SRS)**

for the

**LAMB WEATHER SYSTEM  
(LWS)**

of the

**WEATHER WEBSITE**

Prepared for:

**Hanif Baharin**

Prepared by:

**abHan Inc.**

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## DOCUMENT APPROVAL

	NAME	DATE
Verified by:  _____ (Project Leader)		
Authenticated by:  _____ (Project Manager)		
Approved by:  _____ (Client)		

Software: Microsoft Word:Mac 2004  
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## REVISION HISTORY

REVISION	DESCRIPTION
A	
B	
C	
D	
E	

Ind. + Date					
Written by					
Verified by					
Authenticated by					
Approved by					

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# 1 Scope

## 1.1 Identification

System Number:  
System Name : “Weather Website”  
CSCI Identification Number :  
CSCI Title : “Lamb Weather System”  
CSCI Abbreviation : LWS

## 1.2 Overview of the LWS

Purpose of the Weather Website system:

The Weather Website system collects weather data from a weather station in Building 0, University of Queensland, Ipswich and store the data in a database. Data from the database is then presented on a website to provide current and past weather information.

Purpose of the LWS CSCI:

LWS CSCI should be able to extract data from the weather database and present weather information on a website in such way that highlights the fluctuates of high and low temperatures of the day in Ipswich compared to yearly average difference of high and low temperatures in Malaysia.

The information presented should be engaging and witty to amuse friends and families of UQ Ipswich international students from countries on the equator who are not used to tremendous fluctuation of temperature within a day and trying to cope with the weather in Ipswich.

LWS CSCI must be able to display other ‘standard’ weather information such as temperature, wind speed, pressure, humidity and atmosphere condition.

Information must be displayed in a blogging fashion, with reverse chronological weather information, so that website appears personal, and users get the feeling of reading a personal journal about coping with weather differences. Archived information must also be accessible from LWS CSCI.

## 1.3 Overview of the Documents

This document describes the interaction between actor and LWS CSCI. LWS requirement analysis is presented using OOAD UML notation. All UML notation is made using Microsoft Word because CASE tool is not available.

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## 2 Applicable Documents

The following documents are research materials used as references in developing the interface design of LWS CSCI. In the case of discrepancy between the referred materials and this document, this document should always be considered as a true source of information for LWS CSCI development.

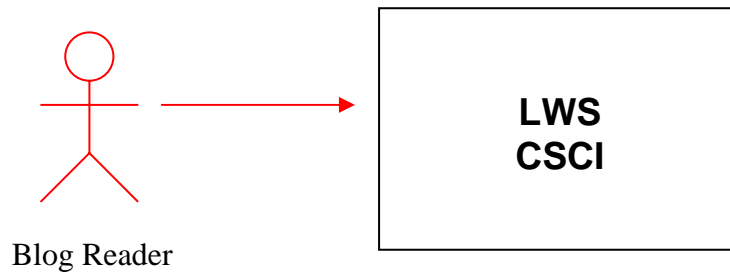
### 2.1 Non-contractual Documents

- |                       |   |
|-----------------------|---|
| [1] Guideline WebEx-1 | <a href="http://au.yahoo.com">http://au.yahoo.com</a>   |
| [2] Guideline WebEx-2 | <a href="http://uk.weatherchannel.com">http://uk.weatherchannel.com</a>   |
| [3] Guideline ID-1    | Preece, Rogers, & Sharp (2002), Interaction Design: Beyond Human-Computer Interaction, John Wiley & Sons, Inc. : New York |
| [4]Guideline ID-2     | Cooper (1999), The Inmates are Running the Asylum, Sams : Indianapolis, IN  |
| [5]Guidleline UML     | Booch (1994), Object-oriented Analysis and Design, Benjamin-Cummnings Pub, Co.:Redwood City, California                   |

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### 3 Engineering Requirements

#### 3.1 CSCI External Interface Requirements



**Figure 1:** Use Case External Interface Diagram

##### 3.1.1 Interface Blog Reader/ LWS CSCI

Interface Identification : Blog Reader  
Interface Type : Person

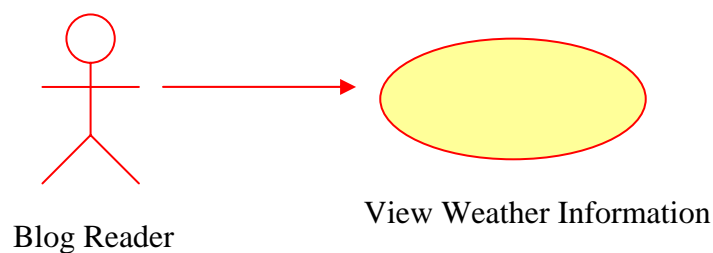
##### Description

Blog Reader is an actor who is interested in the well being of international students in Ipswich in terms of coping with the weather and uses LWS CSCI to get Ipswich weather information

##### Association

This actor communicates with View Weather Information use case.

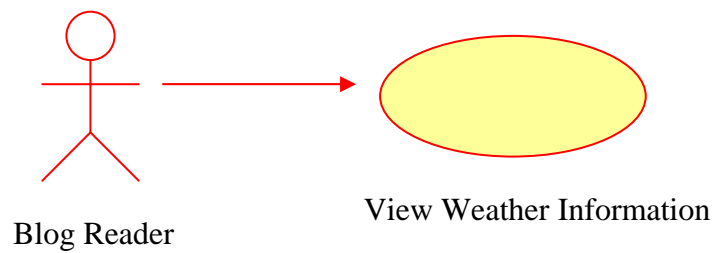
#### 3.2 CSCI Capability Requirement



**Figure 2:** Use Case Diagram of LWS CSC

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### 3.2.1 Use Case View Weather Information (SRS\_REQ\_100)



**Figure 3:** View Weather Information Use Case

#### 3.2.1.1 Brief Description

The Blog Reader initiates this use case. It provides the capability for Blog Reader to view Ipswich weather information using the Internet.

#### 3.2.1.2 Characteristic of Evaluation

Upon Blog Reader's request

#### 3.2.1.3 Pre-Condition

Weather station and database in building 0, UQ Ipswich is up and running

#### 3.2.1.4 Description

##### 3.2.1.4.1 Basic Flow

This use case begins when Blog Reader enters the URL of the website in a web browser. Once the system receive a request from Blog Reader, data in the weather website will be tested to check the state of the weather station. (SRS\_REQ\_101)

The system queries the database and if the data returned is incorrect [**E1: Weather Station Down**]

Once the state of weather station is verified, the system displays the current weather information (SRS\_REQ\_102)

Weather information at 12.00pm of the previous six days is also displayed in reverse chronological order (SRS\_REQ\_103)

List of links for previous 12 weeks of weather information is displayed (SRS\_REQ\_104)

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Archive link is displayed (*SRS\_REQ\_105*)

An 'About Box' describing the website and the meaning of graphical representation used is displayed (*SRS\_REQ\_106*)

The use case is finished when blog reader close browser window or go to another website.

#### **3.2.1.4.2 Alternative Flow**

##### **A1: Blog Reader clicks one of the 12 previous weeks link (*SRS\_REQ\_107*)**

If the blog reader clicks the link, the browser will load a new page with weather information of the week chosen displayed in reverse chronological order. The weather data taken from the database for previous week display should be at 12.00pm. The new page will also have *SRS\_REQ\_104*, *SRS\_REQ\_105*, *SRS\_REQ\_106*.

##### **A2: Archive link is clicked (*SRS\_REQ\_108*)**

A new page will load showing all previous weeks links. When Blog Reader click one of the links a new page will load as in *SRS\_REQ\_107*.

#### **3.2.1.4.3 Exception flow**

##### **E1: Weather Station Down (*SRS\_REQ\_109*)**

A new page will load with a message about the unavailability of information due to weather station down.

#### **3.2.1.5 GUI**

Weather information is displayed in a comical graphic form that highlights the high and low temperatures differences compared to the yearly average of high and low temperatures in Malaysia. High and low temperature is also stated in text. To achieve this the usage of a picture of a lamb tied to a tree stump is used. When the daily fluctuate of weather reach is higher than the average temperature fluctuation in Malaysia; the lamb's hind legs will be pulled by a hand and the lamb's body will elongate proportional to the difference of high and low of the current temperature in Ipswich as compared to the average high and low difference in Malaysia (*SRS\_REQ\_110*)

Weather information includes temperature (text), atmosphere condition (graphic and text), and timestamp (text), wind speed (text), pressure (text), and humidity (text). (*SRS\_REQ\_111*)

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### 3.2.1.6 Rules

Elongation of lamb's body is proportional to the difference of Ipswich's temperature daily fluctuation and average temperature fluctuation in Malaysia.

Lamb's body elongation (**SRS\_REQ\_112**):

- If the difference is less than 25 percent lamb's body remains as the original size
- If the difference is between 25 percent to 50 percent the body doubles in length
- If the difference is between 51 percent to 75 percent the body triples in length
- If the difference is more than 75 percent the body quadruples in length

Lamb's face (**SRS\_REQ\_113**):

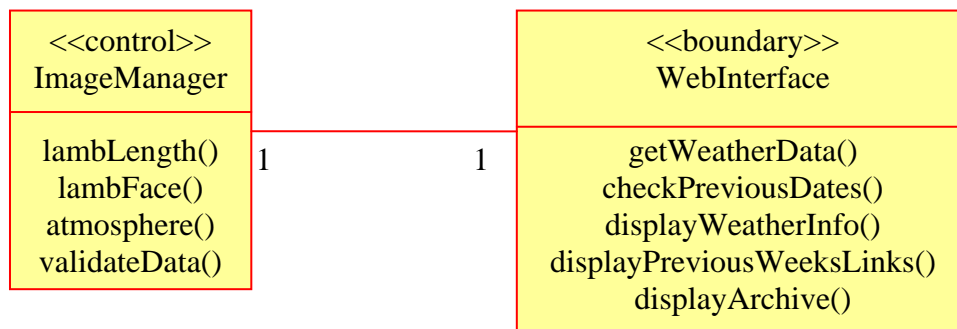
- If the current temperature is lower than Malaysia's average low temperature lamb frowns and its face turns blue
- If the current temperature is higher than Malaysia's average high temperature lamb frowns and its face turns red
- If the current temperature is between 27 and 32 degrees Celsius lamb smile and has its default colour

Atmosphere graphic (**SRS\_REQ\_114**):

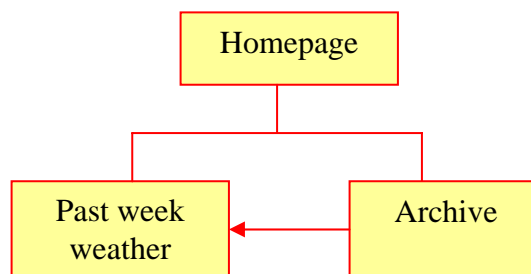
- Atmosphere graphic must change accordingly to the weather (ex: cloud picture depicts cloudy day)

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### 3.3 CSCI Internal Interface



**Figure 5:** LWS Class Diagram



**Figure 6:** Website Map

Website Map	Contents as stated in requirement no:
Homepage	SRS_REQ_101 SRS_REQ_102 SRS_REQ_103 SRS_REQ_104 SRS_REQ_105 SRS_REQ_106
Past week weather	SRS_REQ_107
Archive	SRS_REQ_108

**Table 1:** Website Map and Content



### 3.4 Requirement Traceability

REQUIREMENTS		DESCRIPTION
Source	Allocated	
Client's Interview Documents	SRS_REQ_100 <ul style="list-style-type: none"> <li>• SRS_REQ_101</li> <li>• SRS_REQ_102</li> <li>• SRS_REQ_103</li> <li>• SRS_REQ_104</li> <li>• SRS_REQ_105</li> <li>• SRS_REQ_106</li> <li>• SRS_REQ_107</li> <li>• SRS_REQ_108</li> <li>• SRS_REQ_109</li> <li>• SRS_REQ_110</li> <li>• SRS_REQ_111</li> <li>• SRS_REQ_112</li> <li>• SRS_REQ_113</li> <li>• SRS_REQ_114</li> </ul>	<b>View Weather Information Use Case</b> <ul style="list-style-type: none"> <li>• Check weather station</li> <li>• Displays current weather information</li> <li>• Weather info of previous 5 days</li> <li>• Previous 12 weeks links</li> <li>• Archive links</li> <li>• About box</li> <li>• Previous week page</li> <li>• Archive links page</li> <li>• Weather station down page</li> <li>• Present info in a comical way</li> <li>• Other weather info is also displayed</li> <li>• Rule: Lamb's body elongation</li> <li>• Rule: Lamb's face</li> <li>• Rule: Atmosphere graphic</li> </ul>

**Table 2:** Requirement Traceability



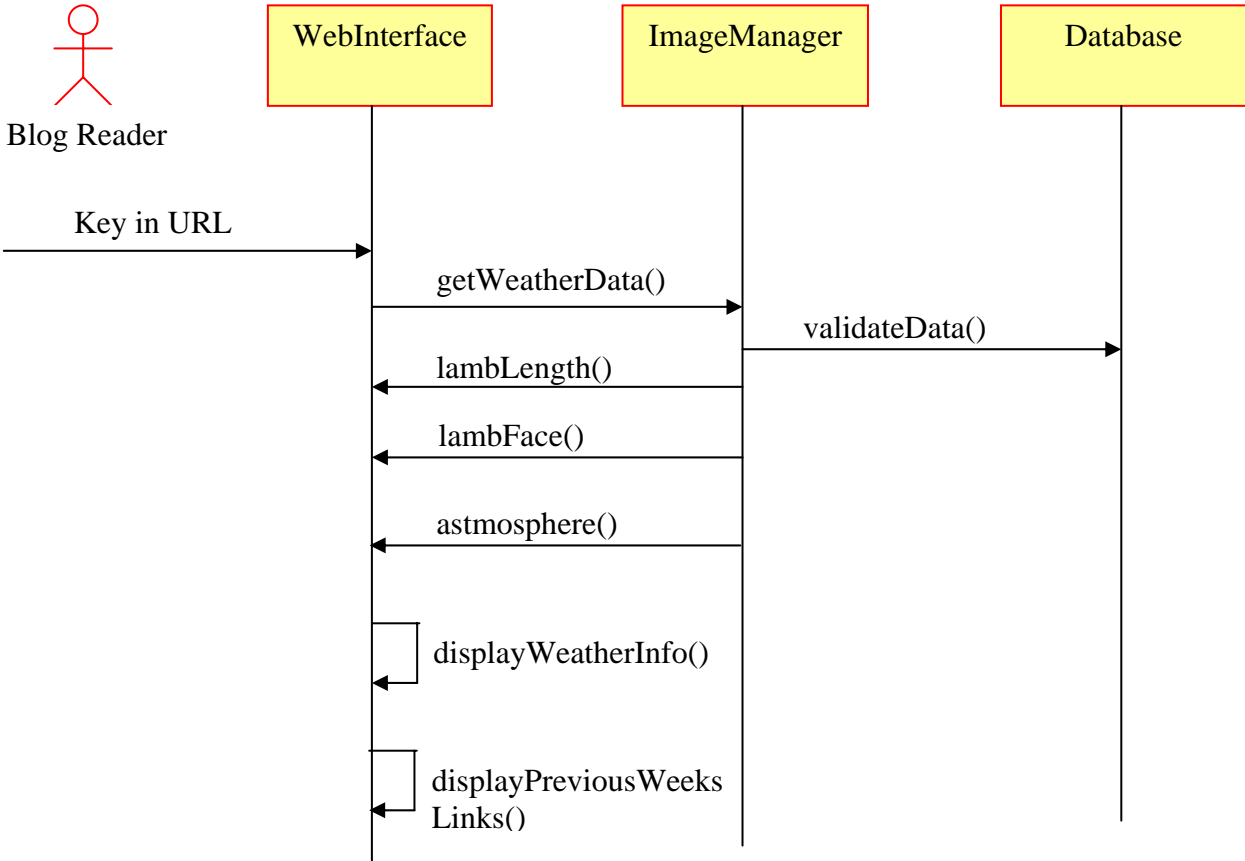
## 4 Notes

Abbreviation used:

- CSCI      Computer Software Configuration Item
- LWS      Lamb Weather System

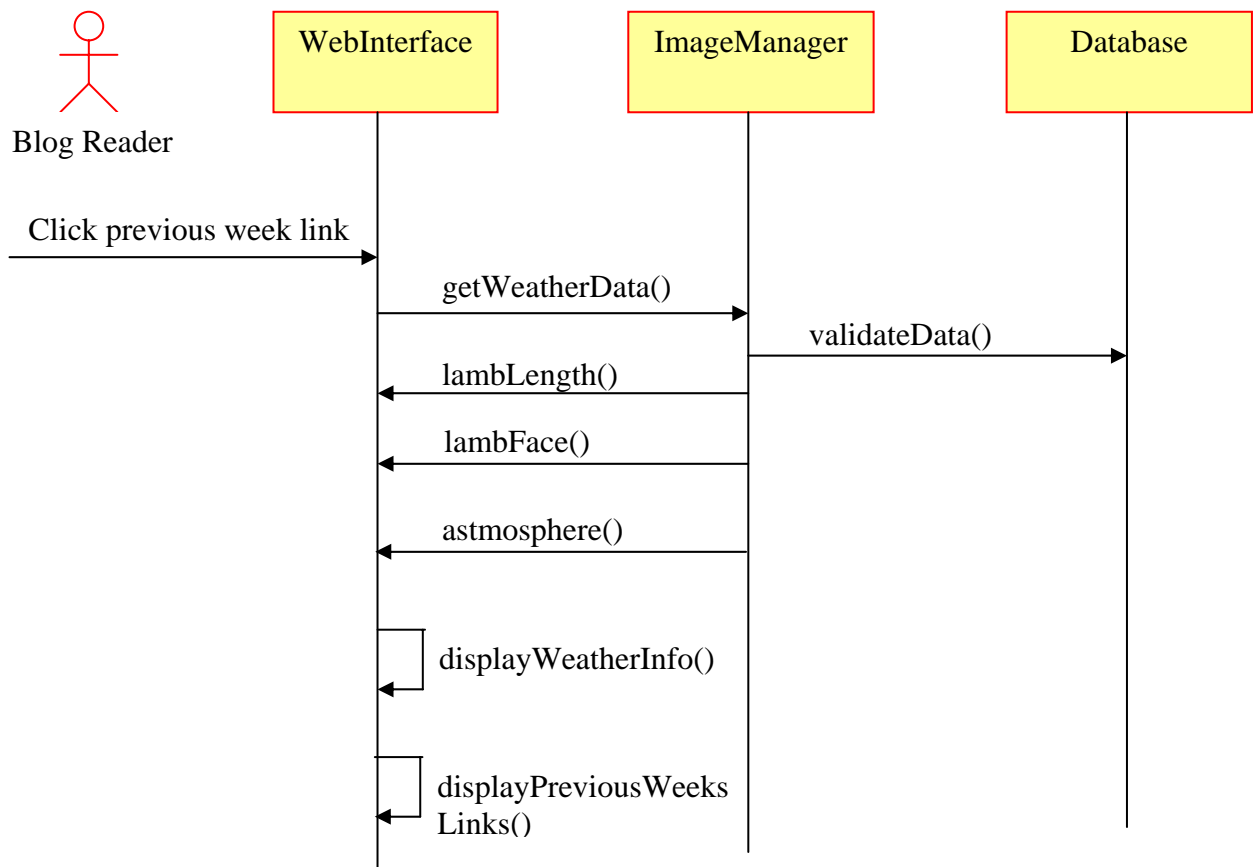


**ANNEX**



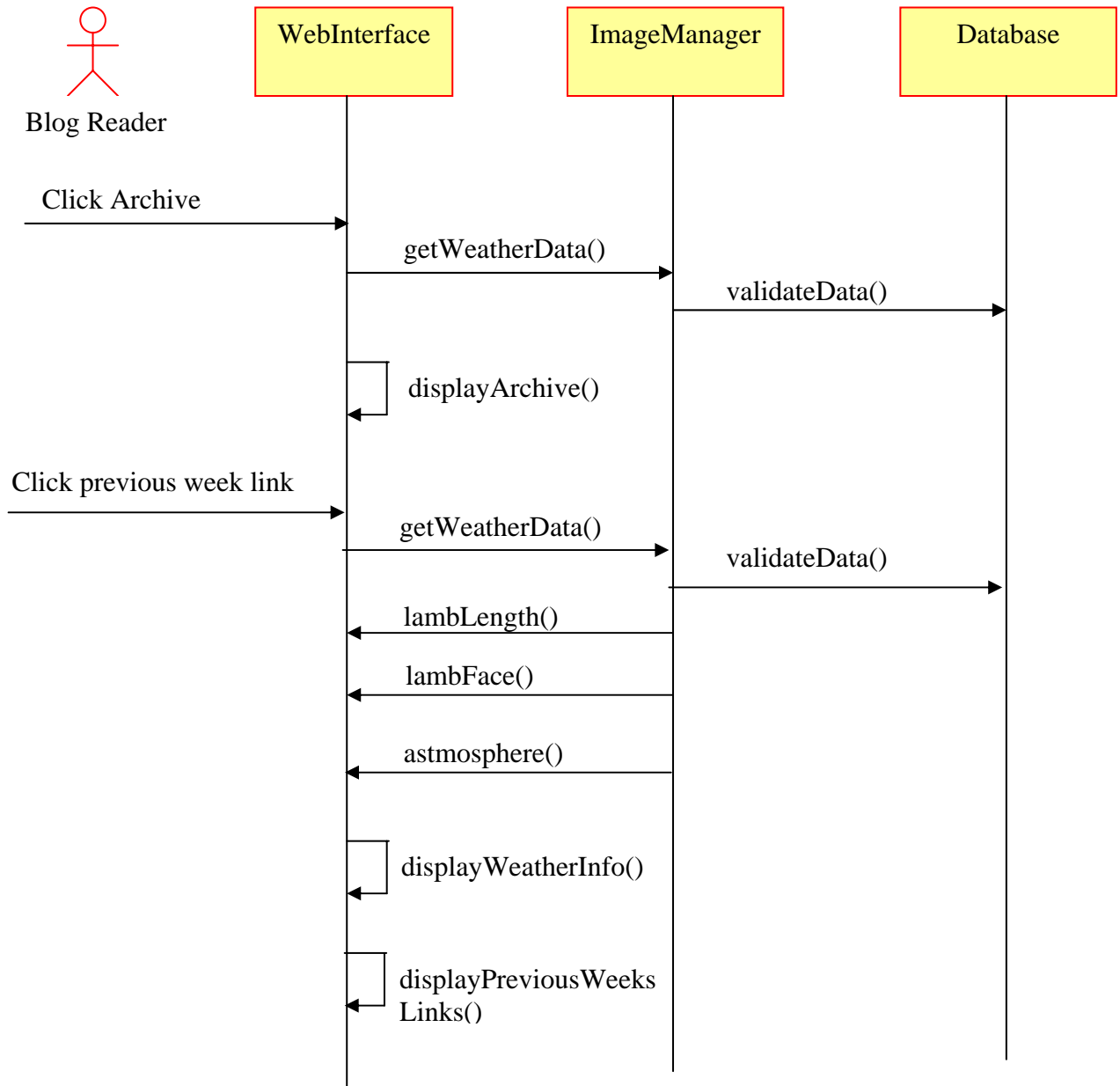
**Appendix 1: View Weather Information / Basic Flow**





**Appendix 2: View Weather Information / A1**





**Appendix 3: View Weather Information / A2**



## **Roles**

Hanif Baharin from Pkry Corp is the client.

Abhan 'Toby' Tatashi from abHan Inc is the Project Manager, Graphic Designer and Webcontent Editor

Toby Baharin from abHan Inc is the Requirement Engineer, System Analyst and Tester

Ahmad Hanif from abHan Inc is the Web Architect and Developer

Weather station and database are provided and managed by School of ITEE, University of Queensland, Brisbane.



