EcoCache Foss4g Hackathon Documentation

Release 0.1

Foss4g Hackathon Group

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CONTENTS

About EcoCache Foss4g Hackathon

The idea behind the Ecocache project was to capture useful information about the environment across the UK using easily identified object. An example of this would be the flowering dates of Daffodils across the UK, which starts in the south of the UK and travels north. By making this as an app for children the aim was to make something fun and engaging that would encourage kids to examine their environment more closely whilst providing valueable data as the result. THe aim is to mimic the "Got to catch them all" style of games with achievements and goals in a simple to use app that can be used while in the car or out for a walk.

Contents:

CHAPTER

ONE

TABLE STRUCTURE

The table structure to store and manage data acquisition are described below:

```
#Create DB
CREATE DATABASE `geo_cache` /*!40100 COLLATE 'utf8_unicode_ci' */;

#environment table - description of area user is spotting from
CREATE TABLE `environment` (
    `environment_id` INT(10) NOT NULL AUTO_INCREMENT,
    `environment_name` VARCHAR(150) NOT NULL DEFAULT 'Unnamed Location',
    PRIMARY KEY (`environment_id`)
    )


#category table - collective name for objects
COMMENT='Area category; description of area user is spotting from'
COLLATE='utf8_unicode_ci'
ENGINE=MyISAM;
CREATE TABLE `category` (
    `category_id` INT(10) NOT NULL AUTO_INCREMENT,
    `category_name` VARCHAR(150) NOT NULL DEFAULT 'Unnamed category',
    PRIMARY KEY (`category_id`)
    )


COMMENT='Name for a collection of objects'
COLLATE='utf8_unicode_ci'
ENGINE=MyISAM;
#object table - definition for individual objects
CREATE TABLE `object` (
    `object_id` INT(10) NOT NULL AUTO_INCREMENT,
    `object_name` VARCHAR(150) NOT NULL DEFAULT 'Unnamed Object',
    PRIMARY KEY (`object_id`)
    )


COMMENT='Living or inanimate object to record discovery of'
COLLATE='utf8_unicode_ci'
ENGINE=MyISAM;
#Discovery table - individual submissions from users, links everything together
CREATE TABLE `discovery` (
    `discovery_id` INT(10) NOT NULL AUTO_INCREMENT,
    `environment_id` INT(10) NOT NULL DEFAULT '0',
    `category_id` INT(10) NOT NULL DEFAULT '0',
    `object_id` INT(10) NOT NULL DEFAULT '0',
```

```
43      `object_size_id` INT(10) NOT NULL DEFAULT '0',
44      `location_id` INT(10) NOT NULL DEFAULT '0',
45      PRIMARY KEY (`discovery_id`)
46      )
47
48
49      COMMENT='Table for recording individual discoveries of objects'
50      COLLATE='utf8_unicode_ci'
51      ENGINE=MyISAM;
52      #Describes object sizes
53      CREATE TABLE `object_size` (
54          `object_size_id` INT(10) NOT NULL AUTO_INCREMENT,
55          `object_size_description` VARCHAR(150) NOT NULL DEFAULT '',
56          PRIMARY KEY (`object_size_id`))
57
58      COMMENT='Record possible sizes for object'
59      COLLATE='utf8_unicode_ci'
60      ENGINE=MyISAM;
61      #Object category linking table
62      CREATE TABLE `object_category` (
63          `object_id` INT(10) NOT NULL DEFAULT '0',
64          `category_id` INT(10) NOT NULL DEFAULT '0',
65          PRIMARY KEY (`object_id`, `category_id`)
66          )
67
68
69      COMMENT='Links objects to categories'
70      COLLATE='utf8_unicode_ci'
71      ENGINE=MyISAM;
72      #Category environment linking table
73      CREATE TABLE `category_environment` (
74          `category_id` INT(10) NOT NULL DEFAULT '0',
75          `environment_id` INT(10) NOT NULL DEFAULT '0',
76          PRIMARY KEY (`category_id`, `environment_id`)
77          )
78
79      COMMENT='Links categories to environments'
80      COLLATE='utf8_unicode_ci'
81      ENGINE=MyISAM;
82
83
84      #Location date storage
85          CREATE TABLE `location` (
86              `location_id` INT(10) NOT NULL AUTO_INCREMENT,
87              `geolocation` POINT NOT NULL,
88              PRIMARY KEY (`location_id`)
89              )
90      COLLATE='utf8_unicode_ci'
91      ENGINE=MyISAM;
```

CHAPTER

TWO

INDICES AND TABLES

- *genindex*
- *modindex*
- *search*