Server side Design Specification

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# Databse Design

Database Design, uml…

# Data Delivery Design

## POST Request

Post request details…

## MIME message

MIME message details…

## JSON code design

The data set will need to contain a title for the tour, a short description of the tour and a long description, a collection of GPS coordinates for the route, a collection of locations associated with GPS coordinates on the route including images and description, the total time of the route and the total distance of the route.

Table 1 Fields for root of JSON data set

|  |  |  |
| --- | --- | --- |
| Variable Name | Description | Format |
| title | The title of the walk | A string of <30 characters |
| shortDesk | A short description of the tour to be displayed in lists of tours on the website. | A string of <100 characters |
| longDesk | A long description of the tour to be displayed alongside the map on the website. | A string of <1000 characters |
| route | A sequence of GPS locations that describe the route of the tour | A collection of objects representing GPS coordinates. (See Table 2) |
| locations | A set of locations of interest along the tour. | A collection of objects representing locations of interest. |
| time | The number of seconds that elapsed during the recording of the tour. (Not including when paused) | integer |
| distance | The distance of the route of the tour in meters. | integer |

Table 2 Fields for GPS objects

|  |  |  |
| --- | --- | --- |
| Variable Name | Description | Format |
| id | A unique ID indicating the index of the location in the sequence | integer |
| longitude | The longitude of the current GPS location on the route | integer |
| latitude | The latitude of the current GPS location on the route | integer |
| time | The number of seconds that elapsed from the beginning of the tour to this recorded location. (Not including when paused) | integer |

Table 3 Fields for location object

|  |  |  |
| --- | --- | --- |
| Variable Name | Description | Format |
| coord | The ID of the GPS coordinate object that the location is attached to | integer |
| description | A short description of the current location. | A string of <500 characters |
| media | A set of URLs pointing to the images to be associated with the location | A string collection of variable length. |

## Sample JSON format

{

"Title": "My Walk",

"shortDesc": "A walk from grans house to my house",

"longDesc": "This is a walk that I take from my house to my nans. I hope you enjoy it…",

"route": [

{

"id": 0,

"longitude": 345674,

"latitude": 583848,

"time": 0

},

{

"id": 1,

"longitude": 345684,

"latitude": 583848,

"time": 5

},

//LOTS MORE HERE…

],

"locations": [

{

"coord": 5,

"description": "This is where I live",

"media": [

"file1.jpg",

"file2.jpg"

]

},

{

"coord": 17,

"description": "This is about half way",

"media": []

},

{

"coord": 25,

"description": "This is where my gran lives",

"media": [

"file3.jpg"

]

}

],

"time": 45676,

"distance": 23454

}

## Data Delivery Algorithm

Algorithm for processing the data received from the phone

# Website Design

## Site map

Site structure…

Tree diagram…

## User System Design

Use Cases

Details of implementation…

## Interface/ Graphical Design

Web page layouts…

Wire frame diagram…

## Mapping Design

Mapping API design

Layout design

Algorithm design for processing data from database for API