# **Field Definition Grid for Attributes of Entity ‘Trail’**

### **Entity Name:** Trail

### **Synonyms:** None

### **Description:** Hiking route created by a user.

### **Relationship Link Phrases:** Trail has one location, of which a location can have multiple trails. Trail can have multiple trail-features, of which a trail-feature has one trail.

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| **Attribute Name** | **Description** | **Data Type** | **Size (\*max)** | **Possible Values** | **Optional** | **Validation Rules** | **Key** |
| trail\_id | Unique identifier for a trail. | int | \*2,147,483,647 | 0000000000 - 2147483647 | No | Must be numeric | PK |
| trail\_name | Display name. | varchar | \*60 | Any | No | Must be alpha-numeric | No |
| difficulty | e.g. Easy | varchar | 10 | As per Lookup table (title case) | No |  | No |
| location\_id | Location where trail is located. | int | \*2,147,483,647 | 0000000000 - 2147483647 | No | Must be numeric | FK |
| distance | Distance in km. | decimal | p=5 & s=2 | 0.00 – 999.99 | No | Must be numeric; accepts ‘.’ character | No |
| elevation\_gain | Elevation in m. | decimal | p=6 & s=2 | 0.00-9999.99 | No | Must be numeric; accepts ‘.’ character | No |
| estimated\_time | Time in mins. | int | \*10000 | 0-10000 | No | Must be numeric | No |
| trail\_type | e.g. Circular | varchar | 10 | As per Lookup table (title case) | No |  | No |
| last\_updated | Date page was last updated. | smalldatetime |  | 1st January 1900 to 6th June 2079 | Yes |  | No |

# **Field Definition Grid for Attributes of Entity ‘Trail\_Feature’**

### **Entity Name:** Trail\_Feature

### **Synonyms:** Trail-Feature

### **Description:** Associative/link entity between Trail and Feature.

### **Relationship Link Phrases:** Trail may have multiple trail-features, of which trail-feature must belong to one trail. Feature may be part of many trail-features, of which trail-feature must represent one feature.

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| **Attribute Name** | **Description** | **Data Type** | **Size (\*max)** | **Possible Values** | **Optional** | **Validation Rules** | **Key** |
| trail\_id | Unique identifier for a trail. | int | \*2,147,483,647 | 0000000000 - 2147483647 | No | Must be numeric | PK |
| feature\_id | Unique identifier for a feature. | int | \*10 | 0-9 | No | Must be numeric | KF |

# **Field Definition Grid for Attributes of Entity ‘Feature’**

### **Entity Name:** Feature

### **Synonyms:** ‘Trail Info’, ‘Features’

### **Description:** Stores all the possible features for trails.

### **Relationship Link Phrases:** Feature may be part of many trail-features, of which trail-feature must represent one feature.

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| **Attribute Name** | **Description** | **Data Type** | **Size (\*max)** | **Possible Values** | **Optional** | **Validation Rules** | **Key** |
| feature\_id | Unique identifier for a feature. | int | \*10 | 0-9 | No | Must be numeric | PK |
| feature\_name | e.g. ‘Partially Paved’ | varchar | 20 | As per Lookup table (title case) | No |  | No |

# **Field Definition Grid for Attributes of Entity ‘Location’**

### **Entity Name:** Location

### **Synonyms:** *None*

### **Description:** Area where a trail takes place.

### **Relationship Link Phrases:** Location may have many trails, of which a trail must be registered to one location.

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| **Attribute Name** | **Description** | **Data Type** | **Size (\*max)** | **Possible Values** | **Optional** | **Validation Rules** | **Key** |
| location\_id | Unique identifier for a location (town). | int | \*2,147,483,647 | 0000000000 - 2147483647 | No | Must be numeric | PK |
| town | e.g. ‘Newcastle upon Tyne’ | varchar | 50 | Valid town | No | Must be alpha; allow special characters and spaces | No |
| county | e.g. ‘Wiltshire’ | varchar | 50 | Valid county | No | Must be alpha; allow special characters and spaces | No |
| country | e.g. ‘Guinea-Bissau’ | varchar | 50 | Valid country | No | Must be alpha; allow special characters and spaces | No |