1. **Entity-relationship diagram**

If the Playscheme manager wishes to record specific instances of each activity, a separate Activityschedule entity will be required where the start and end date for each instance can be stored.

Carer

Child

Childactivity

Activityschedule

Activity

1. **A listing of the columns required for any new tables**

An Activity table contains all activities on offer with a primary key activity\_id. This helps record activities that are not part of the current Playscheme season. An activity is available once at a given time during a season, while a season may include multiple instances of an activity at different times. An Activityschedule table with a unique activityschedule\_id attribute will store this information. The one-to-many relationship between the tables is afforded by a foreign key column activityschedule\_activity in the ‘child’ entity (Activityschedule) which references the primary key column activity\_id in the ‘parent’ entity (Activity). A start date and an end date is also provided for every instance of an activity.

|  |  |  |
| --- | --- | --- |
| TABLE: Activityschedule | | |
| **Column** | **Datatype** | **Attributes** |
| activityschedule\_id | INT(10) | PK, AI, NN |
| activityschedule\_start | DATE | NN |
| activityschedule\_end | DATE | NN |
| activityschedule\_activity | INT(10) | FK references *Activity.activity\_id* |

1. **Additional requirements**

After adding an Activityprogramme entity, the one-to-many relationship between the Activity and Childactivity tables will no longer exist. The activity\_id column in the Childactivity table should now be linked to the unique identifier of Activityschedule, activityschedule\_id.

|  |  |  |
| --- | --- | --- |
| TABLE: Childactivity | | |
| **Column** | **Datatype** | **Attributes** |
| activity\_id | INT(10) | FK references *Activityschedule.activityschedule\_id* |
| child\_id | VARCHAR(20) | FK references *Child.child\_id* |