Database Design

1 Account Table

This is where the user's account details are saved. It includes the HAPI FHIR JSON response is saved per user.

Table Name: **tbl_Account**			
Column Name	Data Type	Allow Nulls	Sample Values
username	varchar(20)	N	robby07
password	varchar(20)	N	pwd12345
firstname	varchar(20)	N	Robby
middlename	varchar(20)	Y	Jones
lastname	varchar(20)	N	Smith
birthdate	date	N	YYYY-MM-dd, ex: 2005-02-05
hapi_fhir_response	varchar(max)	N	Actual JSON response

2 User Blood Glucose and Insulin Dosage Entries

This is where the user's blood glucose readings and insulin dosages are saved per entered date.

Table Name: **tbl_User_BG_INS**			
Column Name	Data Type	Allow Nulls	Sample Values
username	varchar(20)	N	robby07
datefor	date	N	YYYY-MM-dd, ex: 2005-02-05
bg_morning	decimal(18,2)	N	0.00, 102.5, 91.32
bg_afternoon	decimal(18,2)	N	0.00, 102.5, 91.41
bg_evening	decimal(18,2)	N	0.00, 102.5, 91.54
ins_morning	decimal(18,2)	N	40.0, 55.14, 60.5
ins_afternoon	decimal(18,2)	N	40.0, 55.14, 60.6
ins_evening	decimal(18,2)	N	40.0, 55.14, 60.7

3 Blood Glucose Chart Reference

This is where the blood glucose reference chart is saved. It's used to compare the user's actual readings to the chart values for the reminders/notifications.

Table Name: tbl_BG_Chart			
Column Name	Data Type	Allow Nulls	Sample Values
level_id	varchar(20)	N	robby07
min_range_mgdl	integer	N	0
max_range_mgdl	integer	N	50
risk_level	varchar(20)	N	VERY LOW
suggested_action	varchar(50)	N	Medical Attention

*Below are the actual values for the **tbl_BG_Chart** reference table. Populate the table with these records. These values are not going to be updated.*

level_id	min_range_mgdl	max_range_mgdl	risk_level	suggested_action
1	0	50	VERY LOW	Seek medical attention
2	51	70	LOW	Consult a doctor
3	71	108	NORMAL	No action needed
4	109	180	BORDERLINE	Consult a doctor
5	181	280	HIGH	Seek medical attention
6	281	315	VERY HIGH	Seek medical attention

4 User Achievements

This is where the user's current achievement level is created and updated.

Table Name: tbl_User_ACHV			
Column Name	Data Type	Allow Nulls	Sample Values
username	varchar(20)	N	robby07
current_rank	varchar(20)	N	Bronze
current_points	integer	N	Default = 0

5 Achievement Chart Reference

This is where the achievement reference chart is saved. It's used to compare the user's achievement to the chart values when ranking up.

Table Name: **tbl_ACHV_Chart**			
Column Name	Data Type	Allow Nulls	Sample Values
rank	varchar(20)	N	Bronze
min_points	integer	N	0
max_points	integer	N	35

*Below are the actual values for the **tbl_ACHV_Chart** reference table. Populate the table with these records. These values are not going to be updated.*

rank	min_points	max_points
Bronze	0	35
Silver	36	70
Gold	71	105