The following five components need to be mastered in order to complete the helium / DigiFarm certification process:

1. The helium **Domain Specific Language** (**DSL**), used for certain business functions, scheduled functions, configuration screens and accessing service modules (eg mPesa and SMS).
2. **PostgreSQL**, used for database interactions triggered by the DigiFarm middleware.
3. **Java EE**, used in order to create the DigiFarm middleware, including all bespoke [APIs](https://digifarm-service.mezzanineware.com/docs/v3/).
4. The DigiFarm **application database architecture**, representing database tables and fields as created by the DSL data models.
5. The DigiFarm **design documentation**, representing the product specifications as shared with developers and, in condensed form, with new DigiFarm partners who need to integrate to DigiFarm services.

The following material has been provided in support of the helium / DigiFarm certification process:

In order to achieve certification to develop on helium:

1. **Domain Specific Language** (**DSL**)
   1. See [Annexure A](#wr1b0os7b2cc).

In order to work through a practical example from the DigiFarm implementation for all technology components:

1. **Design documentation**
   1. Document “Farm Management - 1 - DigiFarm Phase 4 Design Document HLD 36”.
2. **DSL code example**
   1. Document “Farm Management - 2 - DSL Code Examples”.
   2. Folder “DSL Code Examples”.
3. **PostgreSQL**
   1. Document “Farm Management - 3 - PostgreSQL”.
4. **Java EE**
   1. Document “Farm Management - 4 - Java v3 middleware”.
5. **Application database architecture**
   1. Document “Farm Management - 2 - DSL Code Examples”.
   2. Folder “DSL Code Examples” > “Data Models”.

Mezzanine will support online, via whatsapp and through face-to-face sessions in Nairobi.

After the documentation has been studied, developers can complete certification which consists of:

1. An automated **online certification** test.
2. A **15 minute question and answer session** on the Farm Management module provided as example.

After certification has been completed, developers are ready to start contributing towards the DigiFarm product.

Any developer who wants to initiate the automated online certification test can contact [john@mezzanineware.com](mailto:john@mezzanineware.com) in order to be enrolled.

**Annexure A**

**Helium Certification Step by Step Guide**

1. Visit our [external wiki page](https://wiki.mezzanineware.com/display/HC/Getting+started+with+helium+development) for step-by-step guidelines.
2. Register on our [Kenyan development server](https://safaricom-dev.mezzanineware.com/web-client/login#/home) with your mobile number as username.
3. Let me know once you have registered on the development server so that I can authorise developer access. Just send me your cell number. Contact me via [john@mezzanineware.com](mailto:john@mezzanineware.com).
4. Start with the [helium tutorial](https://wiki.mezzanineware.com/display/HTUT/Helium+Beginner%27s+Tutorial).
5. In order to download the command line tool for validating and releasing code, use [this link](https://portal.heliumapps.com/release-latest/). Download the file entitled “[HeliumDev-app-xxx-jar-with-dependencies.jar](https://portal.heliumapps.com/release-latest/HeliumDev-app-1.10.1-jar-with-dependencies.jar)” where xxx denotes the latest version number.
6. In order to access the API for releasing code, use [**username:**developer | **password:**G!2$3\_90xnU].
7. Arrange a whatsapp call with me to talk you through any impediments and to ensure you have my detail for whenever you need input on the process: **+2783591369**.