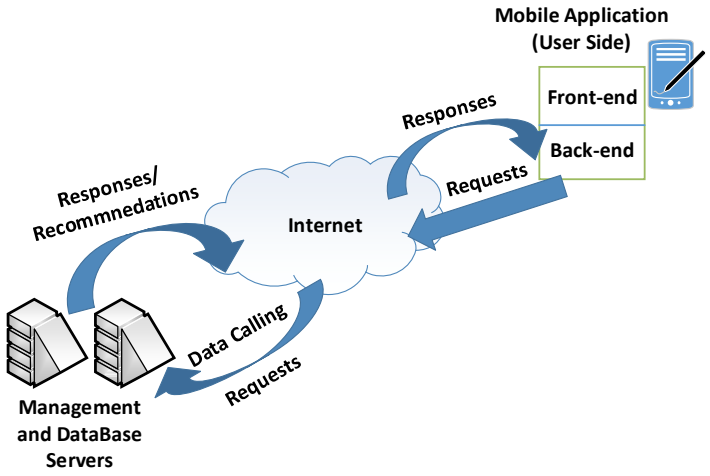
Smart Android Application for Efficient

Database Management

As a part of a Research Project at the Electrical Engineering Department at Alexandria University, we are seeking **2 students** for an **internship**. Their main task would be to develop an intelligent android application for efficient database management. This involves the development of a **mobile application** prototype including front-end and back-end, and the design of a **database** to store various data with a large set of attributes with the capability of applying intelligence data management techniques on the stored data.



Overview of the targeted system architecture

The applicant should have distinct **skills** and **knowledge** of the following:

- Android programming for mobile application development
- Server-user interface and communication inside the application
- Database system design and manipulation
- Web development for server-side scripting
- Management of a database server including setup, management, and communication
- Machine learning algorithms (highly recommended)

The duration of the internship is **6 weeks**. Assessment will be based on weekly reports and bi-weekly meetings. There will also be **incentives** based on the applicant progress. Outstanding students might also be considered in a long-term related project during the next academic year 2015-2016.

Interested students are required to submit their CVs as well as the following assessment task to Dr. Bassem Mokhtar via ee_internship2015@googlegroups.com by July 24, 2015 before 11:59 PM. Potential candidates will be called for an interview within 2 to 4 days from the submission deadline.

Assessment Task

Develop a simple mobile android application that manages the internal memory of a mobile phone to retrieve information about specific types of fascinating food. A simple database of such food needs to be designed in the phone memory. The application should enable specification of interesting meals by users through two modes of operation. The first mode should generate the ingredients to be purchased for a specific meal. The other mode recommends the most appropriate meal according to a set of ingredients entered by a user. The following database table can be used.

		Ingredients					
		Wheat	Egg	Salt	Rice	Fish	Meat
Meals	Cake	×	×	×			
	Sea Food			×	×	×	
	Kabsa			×	×		×
	Pizza	×	×	×			×