

# Management System for Students with Different-Ability at Abjad Center

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## Abstract:

The study develops a system to manage the students' data and information at Abjad center in order to conduct a fair treatment and graduate in a faster rate. The aim of the project is to facilitate the employees' job in which all teachers can be informed by any new detail in any case. The system integrated with company and employment web application to provide service for students with different ability to be affective obtain their job and leave an impact in society as it concentrates on their abilities.

**Keywords:** Abjad center; Employees' job; Management system

## 1. INTRODUCTION

People are convinced that "disability" utterly means the inability to do anything. Presently, media is contributing severely in nourishing people and replenish these bad perceptions. However, there is a change in perception; the acceptance rate of those handicapped has increased today.

Saudi Arabia has been proactive in creating acceptance of individuals with disabilities [1]. The first movement happened when King Abdullah Bin Abdul-Aziz ordered the designation of more Saudis in all sectors-this today is considered the "Saudisation" System [2]. The King instituted a mandate which states that the hiring of one handicapped Saudi would equal to hiring four Saudi employees per company [3]. The King and government have encouraged tapping into a pool of individuals that have been otherwise neglected by society due to ignorance.

A standardized format lessens the burden on health care organizations as they might have multiple operations when operating in reporting requirements of multiple branches or are private oversight processes and group purchasers. Reporting systems facilitate communicating and exchanging information in a work place by presenting tasks such as, patient safety, in a clear format to employees and customers [4]. Public health diseases reporting systems are systems

developed by public health agencies. These agencies accept cases and response-coming from health care professionals that have public health significance-by reporting to the requester [5].

Abjad center was established in 2007 [6]. Many schools embarked on accepting students with certain types of disabilities or special needs, but after they reach a certain age, they will be forced to stay at home, as they will be not well prepared to enter the workforce. Literary, these students' needs are met for only a specific amount of time. Abjad Center provides what other schools cannot, they enroll students with various disabilities and train them until they are ready to move on to Higher Education or enter the workforce. The main aim of this center is to accept and take care of students from the age of five until they become ready to be admitted in society; it provides them with the opportunity of completing their studies and living a normal life [6].

The center has the capacity to aid parents who are not able to mentally accommodate their children with disabilities. The Center equips parents with the right tools and tips to enable the children's success outside the Center. The Center also plays a role in providing employment for its students. Some jobs such as data entry, messenger services, and filing and organizing papers, are among the positions that students from the center are able to perform, in order to avert

overloading. What is worth mentioning here, is that a variety of jobs in businesses and organizations such as libraries, Schools, Beauty Salons can provide a chance for Abjad Students to work and succeed without facing any limitations.

The center deals with different types of students. In terms of treatment, different methods are applied to all students according to the distinguishable characteristics, abilities, and mental levels. They are not depending on a standard program of treatment, yet, they are paying attention to the uniqueness of each case and background of the patient. In particular, each file of all students contains the same fields that should be filled by information according to the program the student is taking. Currently, the center is full of huge amount of papers that contain a lot of data. The center wants to save these data in a database to save the space occupied by paper and to easy access needed data.

Companies are lack of built systems and databases, and the dependence on manual papers or excel and access which need of people to help with the execution of daily activities such as file management, messenger services, etc. The problem arises with Abjad placement processing and record keeping. They face the danger of placing an individual to a position that is not rightly suited for her, due to not possessing a system to keep record of student abilities. Therefore, student performance analysis system or a system that can identify patterns of students' performance is required [7, 8].

The objective of my senior project is to create a functional system for Abjad Center, this system will help Abjad Center keep records of students, report on student progress, update staff of any new thing happens to a student, match students with good job opportunities and create a global interaction between Abjad and relevant outside world:

## 2. Methodology

This project will be conducted using the phases of System Development Life Cycle (SDLC). System Development Life Cycle is a very organized development cycle that allows the project to move smoothly among phases. The project will follow the qualitative approach for data collection, gathering facts that will help in making better decisions for student welfare. The user system schematic diagram is shown in Figure 1.

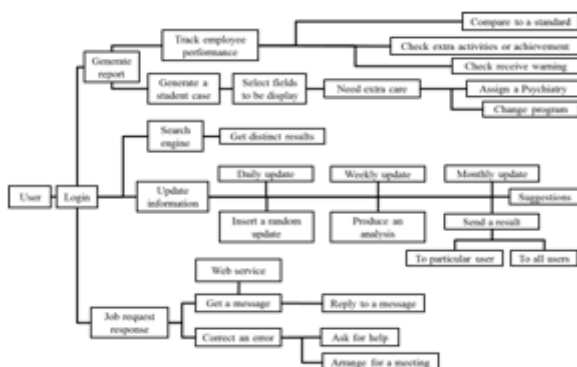
Functional requirements are the functions that serve the users interactions with the system.

1. Prepare an approved convention manual document.
2. Have a log in box, where each member will be assigned a unique user name and password.
3. Define a duration, where the user account will be logged out automatically after a certain amount of time.
4. Register a new student with a new id number and create a profile
5. Link the center to outside companies and match students to jobs.
6. Provide a search function to facilitate looking up for particular student.
7. The system should combine all students' records.
8. Create customizable defined formats for different types of reports that can be generated by the system.
9. Share information between staff members and senior management through email.
10. Staff should be able to check new updates and news in the disability field in which more focused help and improvement tips are readily available.
11. Prepare for risks by making backup schedules each 24 hours.
12. Allow end-users (Abjad employee) to work with staff performance management system (SPMS) Form, for current and past years;
13. Allow authorized users will be able to access the system remotely (outside the center).

## Non-functional Requirements

1. There will be an archive in the system that would maintain a history for each sent email, for each registered student, and for each worked employee
2. Users must be trained for a short period of time before launching the system and begin using it
3. Implement a user friendly interface
4. All components should be executed in a predetermined period of time
5. Abjad system should be secured to protect students' records; to prevent theft of or damage to the information.
6. Prevention of corruption of the architecture component
7. Fault tolerance

8. Senior manager and Staff can insure that data is correct and not lost.
9. Data are accurate and not manipulated due to any failure in the system.
10. The ability to upgrade the system and add more features in the future.
11. The system should be easy to use by non-technical people.



**Figure 1. User system schematic diagram**

## 2.1 Validation on the fields

A complete test on one case was done to check the correctness of the created forms.

1. Registration: (Store , edit , delete and update records )
2. Track student progressing

## 2.2 System control and backup or recovery

A back up plan was recommended to be done weekly as a full back up because the DB is small, and the center does not have a DBA for recovery. The backup can be done using a scheduled export feature in MySQL server (each Wednesday at 5:00pm), by right clicking on the database, choosing the destination to store the data, set it to full, and it will take no more than 5 minutes as the database is small. Restore from file is used when failure happens.

## 3. Result and discussion

The display of the system is shown in figure 2 to 7. The general student information will display here included their age, type of disability (the cause and the duration), undergo any treatment, medicine allergies and occurring consistency. The program of student enrolments will be recorded here covered the participation period and the student performance. Besides that, teacher recommendation or suggestion will be included here. If the accomplishment of student shows high interest, then the job opportunity is easy to identify.

**Figure 2. Student profile page**

**Figure 3. Staff performance management system**

This system provides a clear and good feature for managing the reports. The employee allows filling in the information in specific parts in figure 4. The employee requires completing the sections of performance planning, mid-year and final year evaluation in order to complete the report in figure 5. The input information for performance planning will be evaluated by the manager and the comments feedback to the employee for review which shown in figure 6. The document could be saved, reset, submitted, or complete evaluated by the HR.

**Figure 4. Staff planning page**

**Figure 5. Staff evaluation page**

3-Final Rating (composite of Objectives and Competencies):  
☐ Leading Performance ☐ Excellent Performance ☐ Solid Performance ☐ Building Consistency ☐ Need Improvement

Seq	Development Actions for the Year	By When (mm/yyyy) H	Mid-Year Progress Review (Comments)	Year-End Evaluation (Comments)	Control
1					
2					

**Figure 6. Performance evaluation page**

**Abjad Center**

Home → Recruiting

Search Company:  Job:  Go

COMPANY: Savola, Neema, CBA

Job List: Data Entry, Messenger

Apply now view Requirements

**Figure 7. Jobs page**

## 4. Conclusion

A special education center, which handles a sensitive issue, should have professional way in handling their tasks and storing their data. Hence, a new differently-able website will be developed in an easy way, which enables Abjad center's employees to perform their job and share it with other employees. This leads them to be collaborated and produce a better level of service to students and the center as well. The management system for students with different-ability at Abjad Center is developed and demonstrated the capability of the usage to improve the employee's performance.

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