



Executive Summary

Abstract

Under the present conditions that Egypt undergoes; especially, after the revolution and discordances between categories of governance and opposition, which causes the lack of security from time to time, this makes the investment in Egypt be risky for an investor.

In this critical stage it is necessary to take into consideration the Egyptian financial status and put *Investment in Egypt* as high priority goal ...

Therefore, this research project is addressed to both **store & organize** investment complementary information particularly in Egypt and **present** them in an attractive and encouraging way that inspires a stakeholder, investor, and/or a decision maker about new ideas to fund in Egypt.

Why our research matters ?

Why our idea? is it really important ? Does it mean a lot to the investment in Egypt? All these questions have one answer; who didn't ever wonder about the financial and investment future of Egypt in the current situation?

Our research project is titled: *Egypt Investor Information System (EIIS)*; , the importance of this research is strongly emerging nowadays because after Egyptian revolution we have unstable discordances between categories of governance and opposition which may frighten investors to fund Egyptian projects, so it is the perfect time to encourage investment in Egypt for both internal and external investors by providing all necessary information and presenting those information in such an attractive organized way to inspire investors of new opportunities and new projects to build in Egypt; according to both the benefit of investor and the need of Egyptian society.



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Chapter 1: Introduction

1.1. Background

Under the present conditions that Egypt undergoes; especially, after the revolution and discordances between categories of governance and opposition, which causes the lack of security from time to time, this makes the investment in Egypt be risky for an investor. Nevertheless, it is necessary in this stage after the revolution to advancement of the country and achieving the desired revolution goals. Investment in a politically unstable environment is considered a challenge, and this environment needs a numerous development projects. Our project supports investor by displaying risks description and overcome resolutions in addition to presenting various opportunities for each of the investment fields.

In this critical stage it is necessary to take into consideration the Egyptian financial status and put *Investment in Egypt* as high priority goal ...

Therefore, this research project is addressed to both **store & organize** investment complementary information particularly in Egypt and **present** them in an attractive and encouraging way that inspires a stakeholder, investor, and/or a decision maker about new ideas to fund in Egypt.

In a place having major revolutionary changes it is expected to be starving for investment in many areas such as: agriculture, industry, trade, education, building and construction, and health and treatment and here comes the role of our research to show up these as investment fields' opportunities.



1.2. Problem Specification

The main purpose of this project is to help the investors and/or stakeholders, decision makers (individuals or organizations) by answering the following questions:

- What are the available fields in the different governorates of Egypt ?
- Can the investor search by different criteria (for example: investment field, field-opportunity, projects' budget, by place) ?
- How the system could be implemented to be simple and easy for use for different users?
- How information will be presented in an informative and encouraging way ?
- How information will be updated to store up-to-date information ?

1.3. Research Objectives

This research aims to solve the problems facing investors in Egypt by analyzing, designing and implementing a simple software to answer the previous questions introduced in the problem definition. That will increase the effectiveness of the investor's decision making process, by identifying investment opportunities and risks' management techniques, for a given situation. And in general to develop a tool to encourage investors to come and invest in Egypt.

1.4. Research Methodology

We perform the following tasks

- Collected data about investment fields-opportunities-projects-risks in Egypt.
- Studied & Applied the Information System Development process and its design approaches.
- Analyzed already made websites related to this context such as 'General Authority For Investment website' and others.



1.4. Research Methodology (Cont.)

- Developed database based on studies we've made and filled it with *real data* from specialized governarate websites.

Designed & developed our EIIS website to be reachable by every investor interesting in Egypt from all around the world, by EIIS we made the most important investment information at the hand of investor.

- EIIS is designed & implemented through ITERATIVE SOFTWARE DEVELOPMENT PROCESS, GUI is designed taking into consideration HUMAN COMPUTER INTERFACE PRINCEPLES and using most powerful and flexible programming languages to create our website: CSS3 for clear and informative GUI, PHP for server scripting implementing most of functional requirements, and used APACHE 2.2 webserver to achieve reliability,availability and speed.
- We insisted to make EIIS secure by separating the data entry code sections completely from investor GUI.

1.5. Project Scope

The Egypt Investor Informatio System (EIIS) is developed as a website to be reachable by every interested investor, and to be compatible with every machine to browse, no needed software installation. Information system we develope concerns only with investment in Egypt as a case study for risky place have neccessity of accomplishment of developing projects.

1.6. Limitation

1. Our research project Egypt Investor IS is designed and implemented to be a website, to be compatable with every computer machine no matter of what manufacturer, however its GUI is implemented in CSS3 which needs up-to date browser programs, so we put into consideration to minimize the effect of GUI change if using explorer earlier browser versions.
2. The project developed time was restricted into approximately 3 months including studying other subjects , presenting sheets and performing examinations.



1.7. Research Organization

Chapter 1 introduced research background, problem definition, research objectives and methodologies and finally project scope and limitations, in the subsequent chapters will show brief theory about project context: Investment in Egypt(Chapter 2), then in Chapter 3 we analyze a competitor system in a case study, Chapter 4 illustrates the design and analysis of our system, Chapter 5 shows the testing results for system requirements, and finally Chapter 6 consists of research conclusion and future work. The research then presents all references we used to build our system, and an appendix A shows how to install the system as if your machine is the localhost of the website.



Chapter 2: System domain-Investment in Egypt

2.1. Investment Overview

2.1.1. What is Investment ?

Intended investment is the natural or legal person is in his or his using his experience or his or his money in undertaking economic projects, whether alone or in combination with natural or legal person domestic or foreign, with the state or its citizens to create a project or joint projects.

And knew also that employ investment money in order to achieve revenue or income or profit, but this definition misses target host countries to invest. Investment can be defined in financial point of view and business point of view as: In finance, investment is the purchase of a financial product or other item of value withan expectation of favorable future returns. In general terms, investment means theuse money in the hope of making more money. In business, investment is the purchase bya producer of a physical good, such as durable equipment or inventory, in the hope ofimproving future business.

2.1.2. What is Risk ?

A risk is a possibility or probability or rather a chance that in the future you may incur a loss with respect to your investment. Also called market risk or non-diversifiable risk, systematic risk is the fluctuation of returns caused by the macroeconomic factors that affect all risky assets. Unsystematic risk is the risk that something with go wrong on the company or industrylevel, such as mismanagement, labor strikes, production of undesirable products, etc. Systematic risk + Unsystematic risk = Total risk



2.2. Investment Fields in Egypt

2.2.1. Agriculture Investment Field (Agribusiness)

With a growing population of more than 80mn, Egypt represents one of the largest markets in the region. The government has made development of the agricultural sector a priority, ensuring continued levels of investment, the country's food production industry is better developed than that in many neighboring states, creating strong export opportunities. Egypt's sophisticated food processors are creating products and packaging that are high in quality, competitively priced and attractive to global markets.

2.2.2. Transportation Investment Field (Suez Canal)

The Suez Canal is crucial to both global shipping and to the Egyptian economy, with the Waterway representing one of the biggest revenue-generators in Egyptian trade. It connects the Red Sea to the Mediterranean and acts as the country's major source of foreign currency, which is also generated by oil and gas exports, tourism and remittances from Egyptians living abroad.

2.2.3. Health Care Investment Field

The Egyptian government has undertaken an ambitious reform of the national healthcare system, to build on a reputation as an excellent source of healthcare in the region and as a major destination for both health tourism and investment. As a result the government pledging to involve the private sector in every aspect of the economic reform process, the healthcare sector is well positioned for a healthy expansion.



2.2. Investment Fields in Egypt (Cont.)

2.2.4. Education Investment Field

Egypt's education sector creates and serves the largest workforce in the Middle East and North Africa and is ripe with investment opportunities. Looking abroad, Egypt has seen how much the private sector can bring to educational development, from private education to public-private partnerships for K-12 schooling, from private university and technical/vocational education to corporate training programs. There are currently 2.5 million university students. Served by 39 universities (20 public and 19 private), total number of students enrolled in private institutes reached 313931 in June 2012. The government investments in university and higher education are estimated to reach about EGP 4.1 billion in 2012/2013.

The number of public schools increased from 36 thousand schools in the year 2006/2007 to more than 40 thousand schools in the year 2010/2011 of which 5662 school are private Schools. Total the government will invest about EGP 4.5 billion for pre-university education in plan 2012/2013. The illiteracy rate dropped from 85.7% in 1927 to 25.1% in 2010.

Egypt is open to foreign participation in both higher education and training for the demands of the global marketplace. Moreover, corporate education brands enjoy significant cachet, catering to a growing private-sector appetite for courses ranging from driver-education and security training to high-end professional courses and seminars. Egypt's premiere public-private partnership in education is the Egyptian Education Initiative (EEI) launched in concert with the World Economic Fund. The EEI supports education reform through the use of communication and information technology tools in partnership with some of the world's leading IT firms, including HP, Cisco, Oracle, IBM and Siemens. Other collaborative efforts between the government and the private sector have lead to widespread access to technology by installing computer Labs in 2000 schools, while connecting 1120 schools to the internet, and create about 1954 community level IT club.



2.2. Investment Fields in Egypt (Cont.)

2.2.4. Education Investment Field(Cont.)

Egypt has a long history as an education innovator and for decades has been an exporter of well-educated labor. Today, a growing percentage of young people prefer to stay in Egypt and work at both home-grown giants and multinationals. To do so, they need globally competitive skills — both soft skills and industry-specific training and education. As a result, in addition to the traditional elementary through university education system, vocational and corporate training programs are becoming increasingly popular. Corporate programs teach skills including time management, sales and marketing, human resources and finance, grooming promising employees for management positions. C-suite executives benefit from advanced professional seminars, while blue-collar and semi-skilled workers are taking vocational courses to upgrade their skills. Barely a decade old, has the corporate training sector abounded in potential.

As Egypt grows, so will demand for schools providing cutting-edge, global-quality education and training — demand fuelled by both parents and students, who have always recognized the importance of education in building their own futures and that of Egypt.

2.2.5. Tourism Investment Field

Egypt's tourism industry is among the most diverse and vibrant in the world. Beyond the pristine beaches and year-round sunshine, Egypt's long and varied history, rich cultural heritage and unique geographic features make it a popular destination for adventure, eco, sailing, diving, health and cultural tourism — and for religious tourism to sites of importance to Christians and Muslims alike.

Although well-served by five-star properties, there is considerable room for investment in the three- and four-star hospitality segments. Other highly promising sectors include niche experiences as residential tourism, health and medical tourism, therapeutic tours, providing nature and desert safaris, eco-tourism , and adventures travel.



2.2. Investment Fields in Egypt (Cont.)

2.2.6. Communication and Information Technology Investment Field

Egypt's communications and information technology sector is a leading global outsourcing destination ranked fourth on A.T. Kearney's 2011 Global Services Location Index (GSLI). This puts Egypt ahead of competitors in the region including UAE with ranked 15th.. Egypt, one of the highest-growth potential IT markets in the Middle East, is receiving increasing attention from tier-one vendors and distributors, most of which are already very familiar with the market. Given the huge population, rising economy and relatively low PC penetration, the country will continue to be an important market over the forecast period.

A pro-active policy and clear long-term vision by the government of Egypt, in partnership with the private sector, seeks to make the CIT sector a key one in the country's economy.

Egypt offers easy access to markets in the Arabian Gulf, the Levant, North Africa and Sub Saharan Africa as well as Europe. Open to the world and investor-friendly, Egypt is an ideal location to base a business with regional – and even global - ambitions. It is a key communications node, notably hosting SEA-ME-WE2, the world's first submarine cable linking South-East Asia, the Middle East and Europe.

Leading global players ranging Intel and Oracle to Orange and Vodafone have established product development divisions and call centers serving global operations. Home-grown players are making their marks nationally, regionally and globally. Egypt's CIT businesses cover the entire sector. Call centers based in Egypt serve customers worldwide at all ends of the value chain. Software developers produce Arabic-language solutions for major global software packages and plug-ins for popular English-language programs from Adobe and Microsoft, to name but two. A research-based technology house created part of the global Wi-MAX standard.



2.2. Investment Fields in Egypt (Cont.)

2.2.7. Renewable Energy Investment Field

With the expected depletion of natural gas reserves within the next 57 years, Egypt is an investor's dream when it comes to sustainable energy resources. Egypt possesses an abundance of land, sunny weather and high wind speeds, making it a prime resource for three renewable energy sources: wind, solar and biomass.

Recent political changes have not affected Egypt's long term commitment to renewable energies. The promotion of renewable energies became a political aim that is shared across the political spectrum. Although renewable energy is relatively a new market in Egypt, the country's strategic location and the government's commitment to increasing its renewable energy output make it an attractive investment opportunity. A new policy framework had been approved in February 2008 that fosters an investor friendly system and encourages foreign as well as private sector involvement. The government expects the renewable energy sector to produce 20% of total power generation by 2020, 12% of which will be generated by wind energy. Priority sectors are wind farms (the most cost-effective renewable energy source), followed by biodiesel production, both of which are supported by the country's abundance of land, stable climate conditions and competitive labor force. With solar energy costs expected to decline sharply over the next 5 to 7 years, Egypt aims to develop a competitive market in solar energy, but sees more immediate opportunities in wind and biomass.

Given the need to reduce dependence on gas, it is hoped that Egypt will place greater emphasis on its considerable solar and wind potential. During the period 2011-2016, Egypt's overall power generation is expected to increase by an annual average of 4.5%, reaching 178.8 terawatt hours. This includes annual increases in excess of 9% for renewable-based electricity supply. Egypt has set a target of producing 12% of its power from wind and a total of 20% from renewable by 2020. It is also looking to attract US\$110bn of investment into its power sector by 2027. Egypt plans to boost dramatically the portion of energy coming from renewable sources, getting 20% of the projected 60 giga-watts (GW) of demand in 2020 from renewable. Wind would provide around 7.2GW of that total.



2.3. Investment Risks

2.3.1. Why take risks ?

The question you might have at this point is, 'Why would I want to risk losing some or all of my money?' In fact, you might not want to put money at risk that you expect to need in the short term—to make the down payment on a home, for example, or pay a tuition bill for next semester, or cover emergency expenses. By taking certain risks with the rest of your money, however, you may earn dividends or interest. In addition, the value of the assets you purchase may increase over the long term.

If you prefer to avoid risk and put your money in an FDIC-insured certificate of deposit (CD) at your bank, the most you can earn is the interest that the bank is paying. This may be good enough in some years, say, when interest rates are high or when other investments are falling. But on average, and over the long haul, stocks and bonds tend to grow more rapidly, which would make it easier or even possible to reach your savings goals. That's because avoiding investment risk entirely provides no protection against inflation, which decreases the value of your savings over time.

On the other hand, if you concentrate on only the riskiest investments, it's entirely possible, even likely, that you will lose money.

For many people, it's best to manage risk by building a diversified portfolio that holds several different types of investments. This approach provides the reasonable expectation that at least some of the investments will increase in value over a period of time. So even if the return on other investments is disappointing, your overall results may be positive.



Chapter 3: Case Study: Namaa website

Intended investment is the natural or legal person is in his or his using his experience or his or his money in undertaking economic projects, whether alone or in combination with natural or legal person domestic or foreign, with the state or its citizens to create a project or joint projects.

Small and medium enterprise portal (namaa.org)

This website main idea concentrates on providing services such as making feasibility studies template for users and provides contact information to different stakeholders.

3.1. Information provided to investors

3.1.1 Investment Fields

Provides contact information to reach organizations that can help investor to develop projects in a chosen field or activity.

3.1.2 New and Current Projects

Namaa website is addressing small and medium projects not including information concerning large-range projects.

3.1.3 Business Opportunities

Opportunities in this site are strictly divided into only four categories: Subcontracting, Outsourcing, Franchising, and Investment in new or existing projects



3.2. Searching methods

Search by investment field for opportunities.

3.3. Services and ideas

toolkit including feasibility studies formats and contact info to help investors.

- SME Toolkit
- Business in Development Network - SME Toolkits
- EMAS Toolkit for Small Organizations
- How to Prepare a Feasibility Study?
- Models for Business Correspondence
- Skills and Crafts
- Business Ideas and Feasibility Studies

3.4. Training

- Basics of Exporting
- Communications and Information Technology
- Computer and Internet
- Computer Skills
- International Computer Driving Licence (ICDL)
- Skills and Crafts
- Management Skills
- Marketing

3.5. Namaa Limitation

- Namaa website is addressing small and medium projects not including information concerning large-range projects.
- Most subsite pages are out of reach, no enough maintenance is applied to the system.



Chapter 4: System Analysis & Design

This chapter will introduce requirements, system analysis via sequence diagrams, logical design and physical design for EIIS

4.1. System Requirements

4.1.1. Functional Requirements : Use Case Model

4.1.1.1. Use Case Diagram



fig. 4.1 shows use case diagram of EIIS system



4.1.1.2. Actors Description

Actor ID	Actor Name
Act1	Administrator
Act2	Investor

table4.1 System Actors Identification

4.1.1.3. UC-01 Login

ID	uc-01
Use Case Name	logs in
Actor(s)	Act-01
Description	Allow Administrator to log in to the admin page
Pre-condition	Administrator not allowed to view Admin tasks
Flow of Events	<p>Main flow of events:</p> <ol style="list-style-type: none"> 1. prompt user to enter name and password 2. user enters name and password 3. System verifies the correctness of name and password 4. . if name and password are off authorized user Administrator allowed to view admin tasks. Else error message appears
Post-conditions	Administrator allowed to view admin tasks if user name and password are correct or system will remain unlogged
Uses	
Extends	
Extended By	

table4.2 UC-01



4.1.1.4. UC-02 Display Admin Tasks

ID	UC-02
Use Case Name	Displays Admin tasks
Actor(s)	Act-01
Description	Allow Admin to display tasks
Pre-condition	Administrator is authorized to view Admin tasks
Flow of Events	<p>Main flow of events:</p> <ol style="list-style-type: none"> 1. system displays list of admin tasks 2. Admin choose any of tasks shown 3. Admin may choose to logout
Post-conditions	<p>Can be view Admin tasks</p> <ul style="list-style-type: none"> • Identify place coordinates • Add investment field to place • Add project information to investment field
Uses	
Extends	
Extended By	

table4.3 UC-02



4.1.1.5. UC-03_Identify place coordinates

ID	uc-03
Use Case Name	Identify place coordinates
Actor(s)	Act-01
Description	Administrator identifies the place coordinates on Egypt map
Pre-condition	Administrator is authorized to view Admin tasks
Flow of Events	<p>Main flow of events:</p> <ol style="list-style-type: none"> 1. Egypt map is shown to admin with clickable marked places 2. Admin chooses one of the clickable places 3. System shows clicked place coordinates
Post-conditions	Administrator can Identify place coordinates
Uses	
Extends	
Extended By	

table4.4 UC-03



4.1.1.6. UC-04_Add field to place

ID	uc-04
Use Case Name	Add field to place
Actor(s)	Act-01
Description	Administrator add investment field to place
Pre-condition	Administrator is authorized to view Admin tasks
Flow of Events	<p>Main flow of events:</p> <ol style="list-style-type: none"> 1. admin open task list 2. Admin picks field insert task 3. Admin inserts field to place
Post-conditions	Administrator can add investment field to place
Uses	
Extends	
Extended By	

table4.5 UC-04



4.1.1.7. UC-05_Add project information to field

ID	uc-05
Use Case Name	Add project information to field
Actor(s)	Act-01
Description	Administrator add project information to investment field
Pre-condition	Administrator is authorized to view Admin tasks
Flow of Events	Main flow of events: 1. admin open task list 2. Admin picks field insert task 3. Admin inserts project information to field
Post-conditions	Administrator can add project information to investment field
Uses	
Extends	
Extended By	

table4.6 UC-05



4.1.1.8. UC-06_Search by map

ID	uc-06
Use Case Name	Search by map
Actor(s)	Act-02
Description	Investor search about investment fields for chosen place by Egypt map
Pre-condition	no pre-conditions required , this use case made reachable by all visitors, investor want to search about investment fields by map
Flow of Events	Main flow of events: 1. investor Search by map 2. investor pick place on map to check details 3. system set control to place-field page
Post-conditions	Investor can display field detail for chosen place by Egypt map
Uses	
Extends	
Extended By	

table4.7 UC-06



4.1.2. Non Functional Requirements

4.1.2.1. Speed

Speed is necessary to achieve user satisfaction, it is one of the most important software features to avoid user frustration, speed in our system is achieved by using simple algorithms written in PHP language and served by the powerful webserver Apache 2.2

4.1.2.2. Security

Sql is used to fetch data from database to user and from administrator to database, so achieving security is done by separating insertion code from the GUI interfaces completely, for example: if investor wants to search for opportunity for some place, instead of prompting to enter data into textbox, he/she is allowed to just click the place on Egypt map then the system displays details about this place; by this approach we ensure complete prevention to sql-injection

4.1.2.3. reliability

The same as speed, it is also necessary to achieve user satisfaction, and it is also achieved by using simple algorithms written in PHP language and served by the powerful webserver Apache 2.2



4.1.3.Data Requirements

4.1.3.1. Data entry isolation

Isolation between data entry and GUI achieves data integrity.

4.1.3.2. Money data is in Livre Egyptian (L.E)

We -researcher- insisted to make the coin used in data of money to be Livre Egyptian (L.E) so that the value of the Egyptian pound is encouraged to increase

4.1.3.3. Needed to be up-to-date

System is pretty easy to update data, and insert new ones instead of old ones and this is achieved by the system-database interface design will be shown later in the component design



4.2. System Analysis

4.2.1. Sequence Diagram

4.2.1.1. Login Sequence Diagram

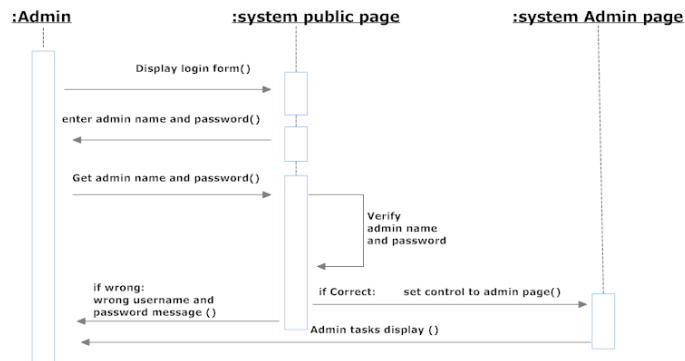


fig. 4.2. shows login sequence diagram of EIIS system

4.2.1.2. Search By Map Sequence Diagram

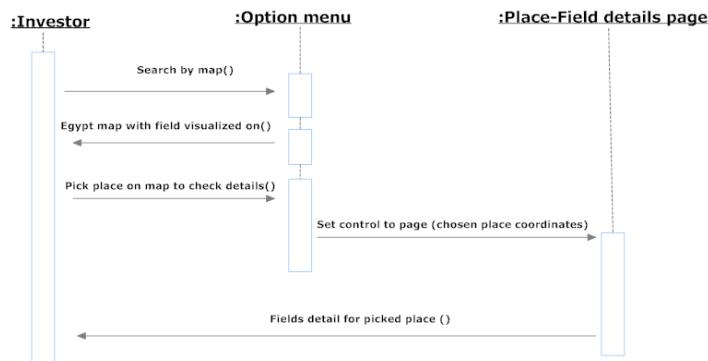


fig. 4.3. shows Search By map sequence diagram of EIIS system



4.3. Logical Design

4.3.1. Entity Relationship Diagram (ERD)

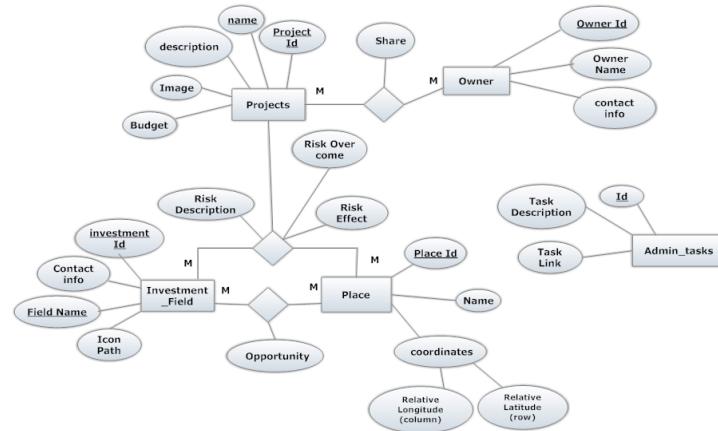


fig. 4.4. shows ER diagram of database schema

4.3.2. Relational Data Model

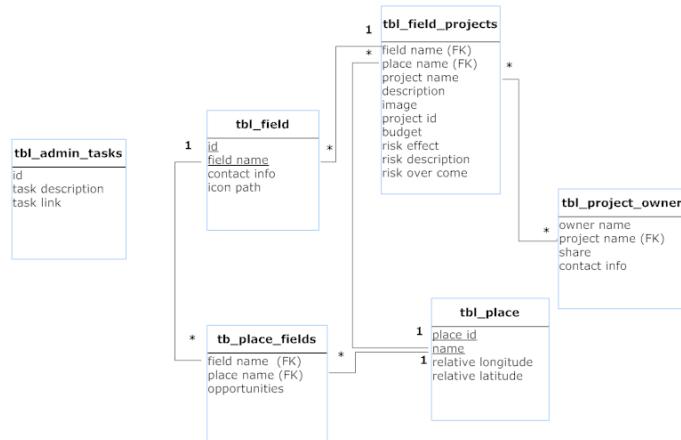
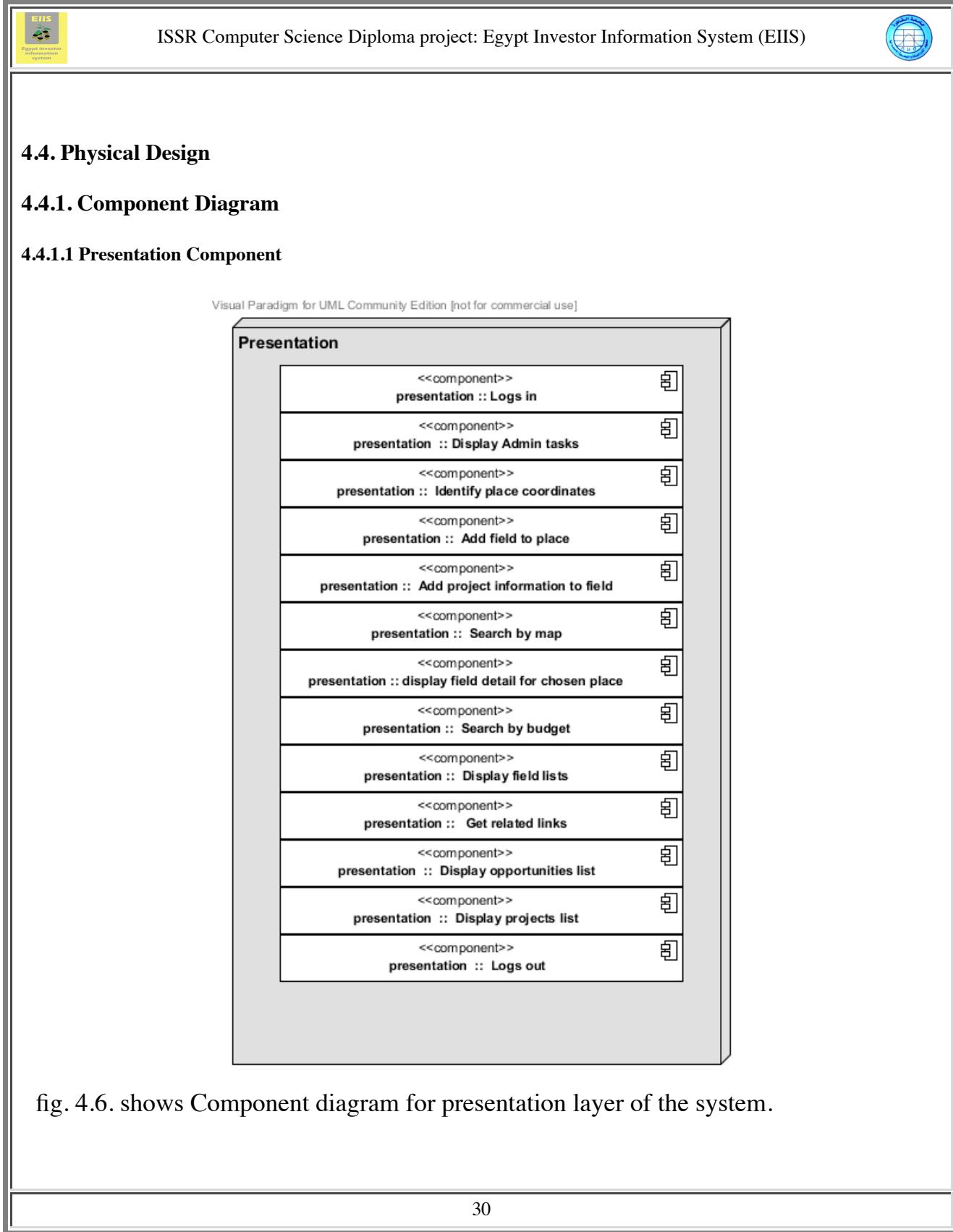


fig. 4.5. shows Relational data model of database schema



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4.4.1. Component Diagram (Cont.)

4.4.1.2 User Interface Component

User Interface Code

user interface code::admin_master_page	[]
user interface code ::all_fields	[]
user interface code :: all_opp_by_fields	[]
user interface code :: all_projects	[]
user interface code :: byplace	[]
user interface code :: default	[]
user interface code :: home	[]
user interface code :: master_page	[]
user interface code :: navigator_bar	[]
user interface code :: news_bar	[]
user interface code :: related_links	[]

fig. 4.7. shows Component diagram for user interface layer of the system.

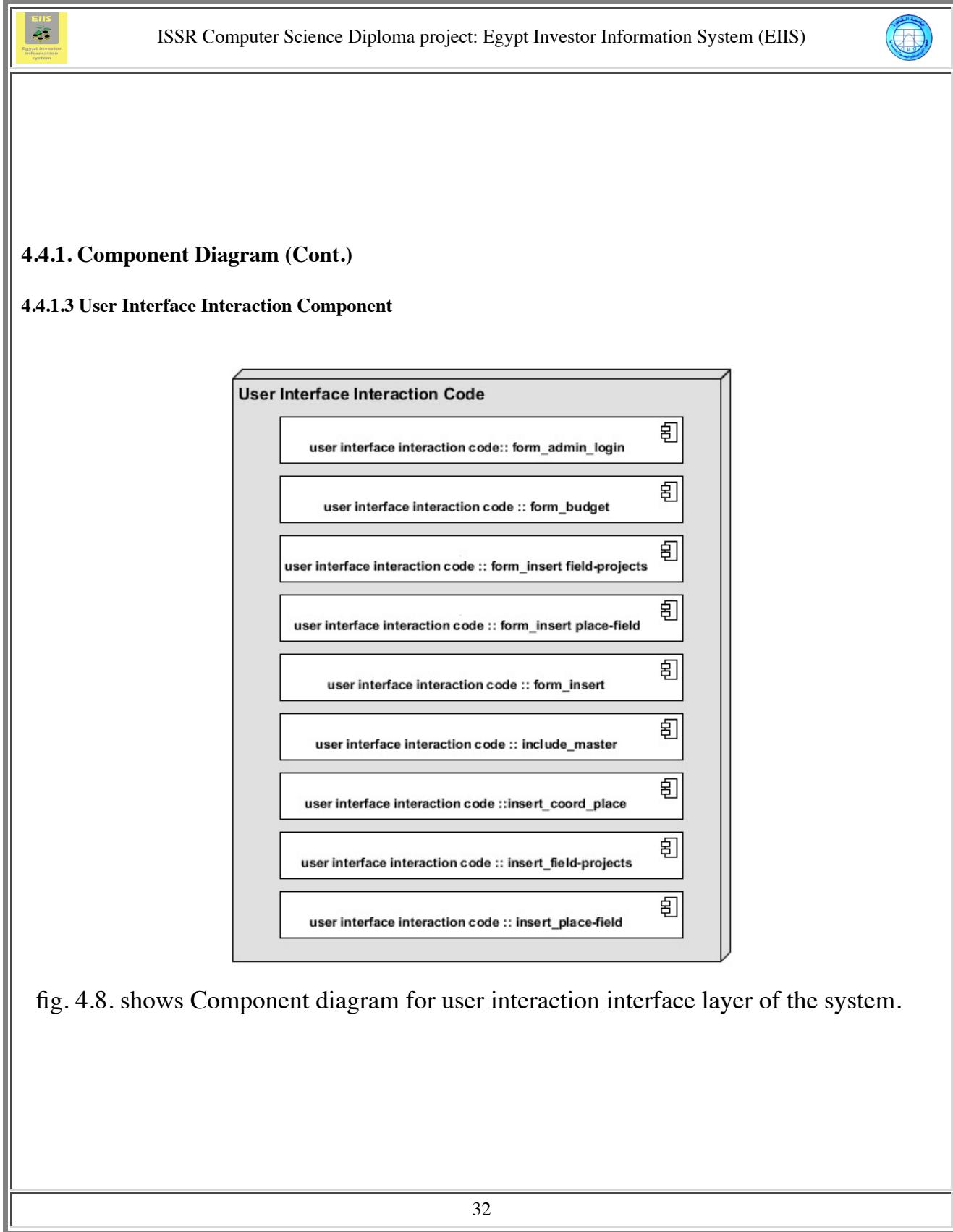
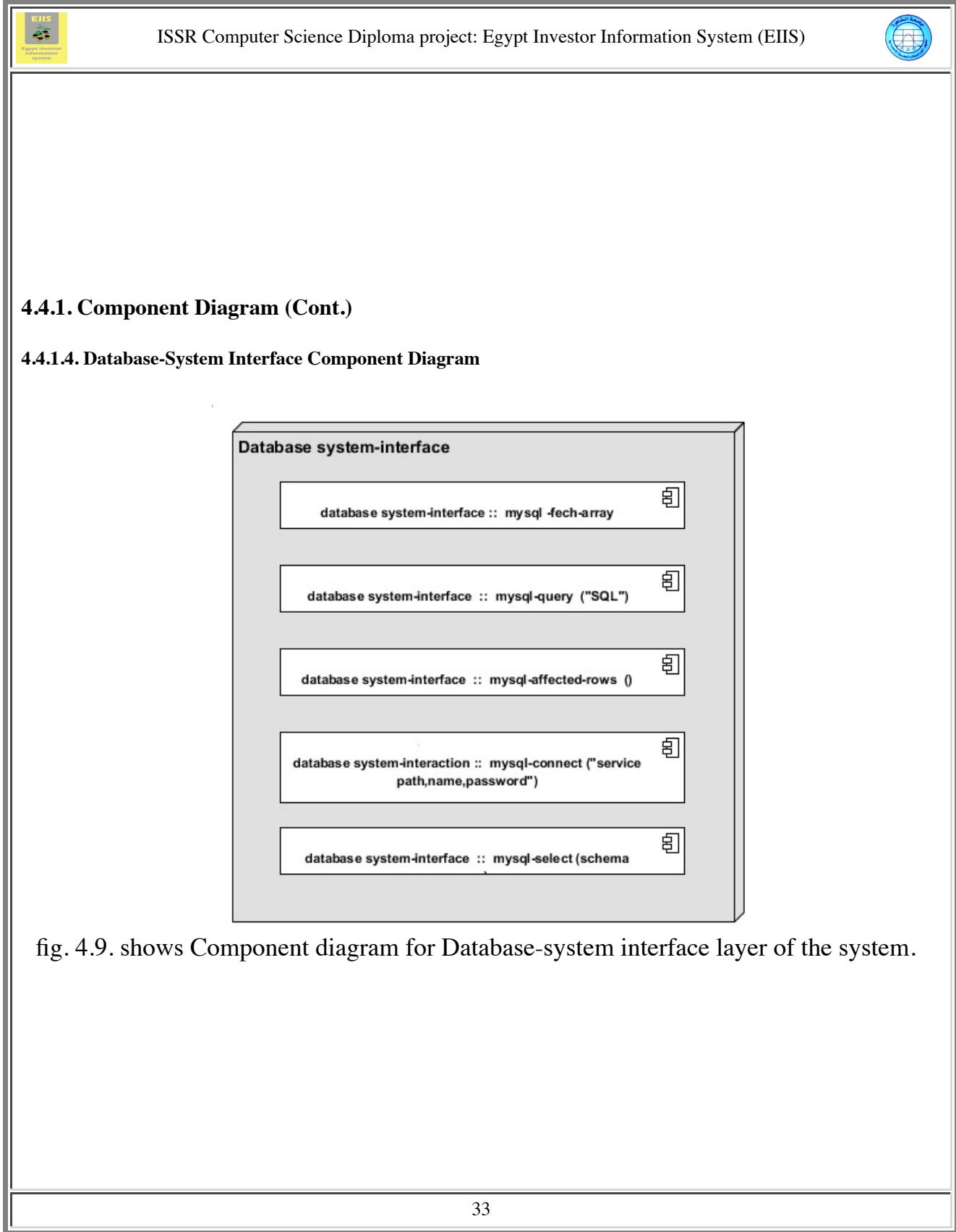
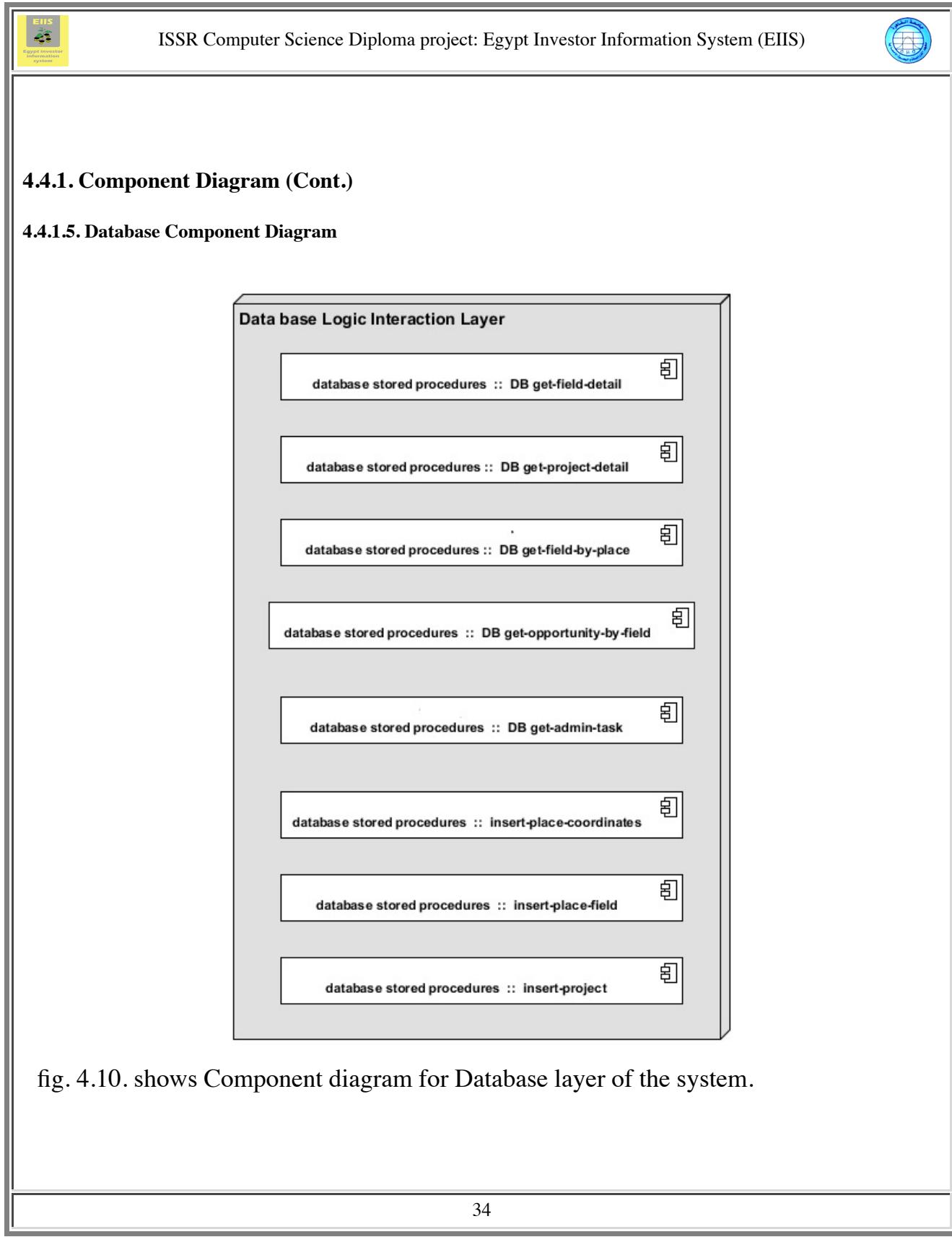
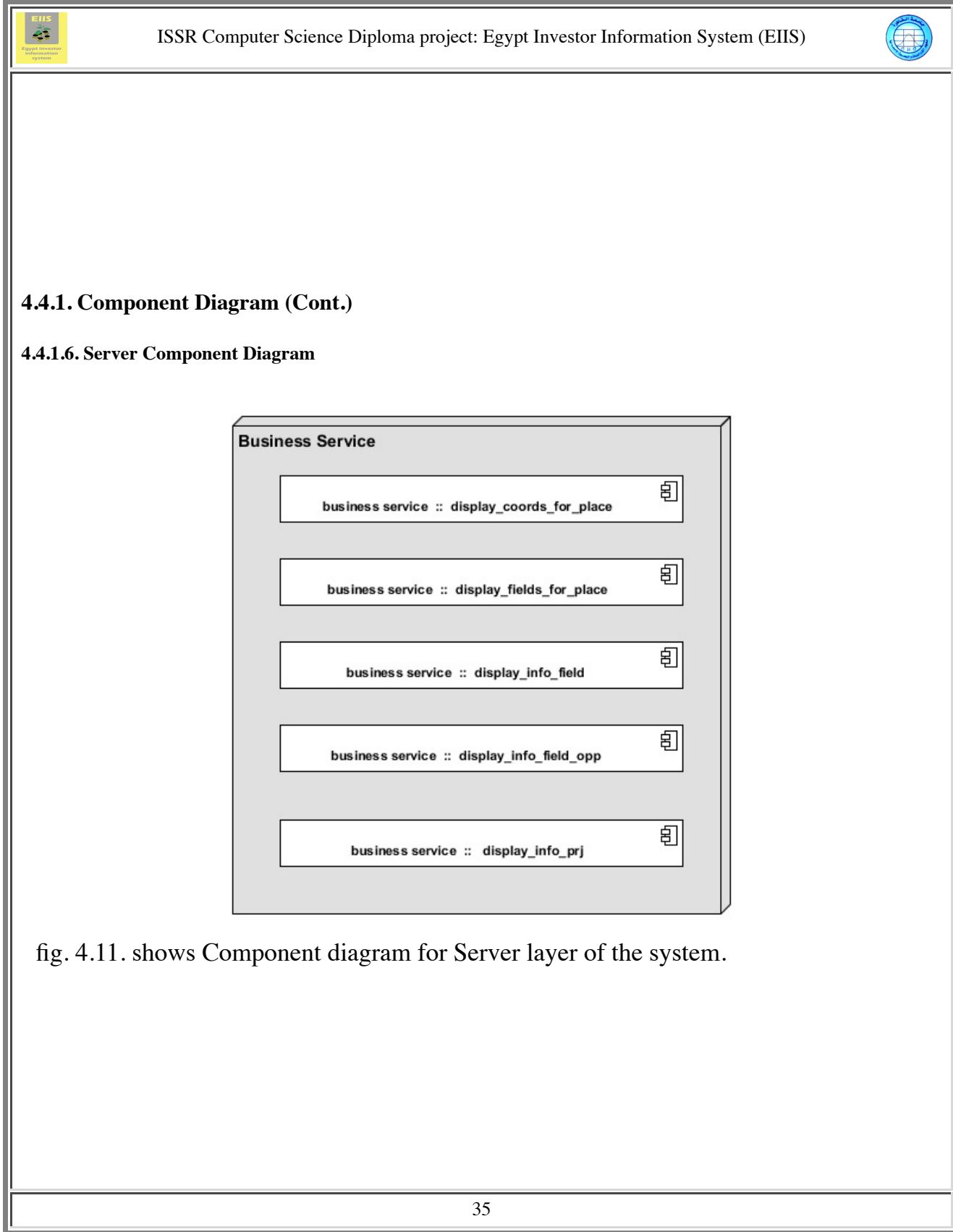


fig. 4.8. shows Component diagram for user interaction interface layer of the system.









4.4. Physical Design (Cont.)

4.4.2. Deployment Diagram

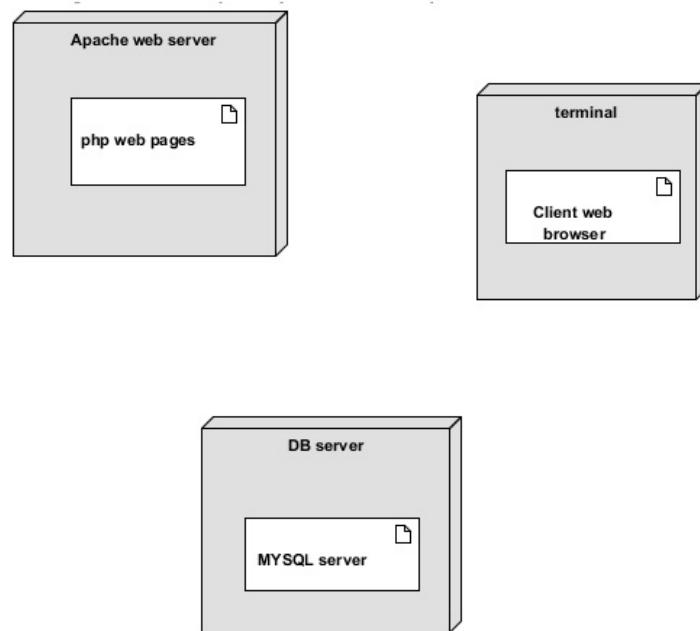


fig. 4.12. shows Deployment diagram for EIIS system.



Egyptian Investor Information System

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Chapter 5: Testing & Results

5.1. User Requirements Validation: GUI description & testing

5.1.1. Home Page



Search By Egypt Map



Search By Budget



Enjoy IS services



Learn About Investment Fields

Agriculture	Suez	Energy
		
Education	Industry	Tourism
		
Health	Security	Other
		

fig. 5.1 Home page of our project website has 4 main options for the investor to surf:

- Search By Map: to pick any place on Egypt map the website will show all investment fields, projects, opportunities related to that place.
- Search By Budget: to search new and/or current existing investment projects and display all their details, display projects restricted by their budget chosen by Investor.
- Learn more about fields: display information related to a picked investment field no matter its place or project budget

each of these GUIs will be illustrated in detail next.



5.1. User Requirements Validation: GUI description & testing (Cont.)

5.1.2. Search By Map

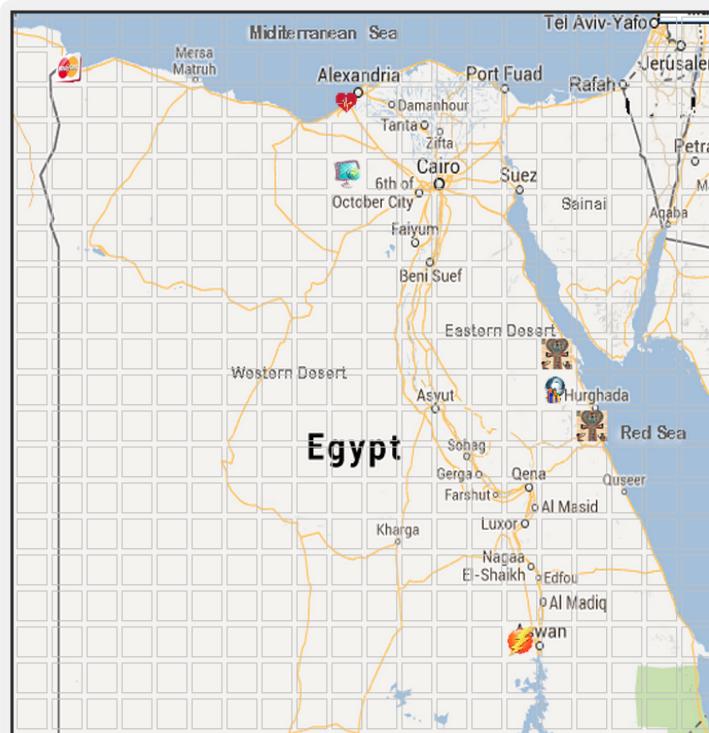


fig. 5.2 Search By Map: Egypt map is shown to investor having investment field symbol on place that is having lots of opportunities to invest in that field. For example the symbol of tourism is spread where Hurghada lies on map as shown in the snapshot, these fields symbols are changing places according to stored data in the system database.

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The screenshot shows a search interface for projects based on budget. It features two input fields: 'Start From:' containing '10000' and 'Up To:' containing '100000'. Below these fields is a 'Search' button.

5.1. User Requirements Validation: GUI description & testing (Cont.)

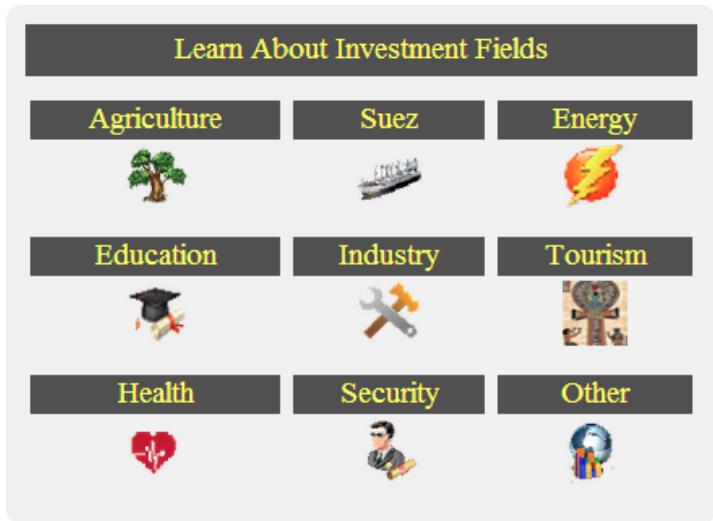
5.1.3. Search By Budget

fig. 5.3 Search By Budget: lets the investor search for every possible stored project in the database by range of budget, he is allowed by the form shown to choose the lower and upper bounds of the searched project's budget, as shown GUI is run for budget starting from 10,000L.E up to 100,000L.E. the search results 2 found projects, and these are the stored projects so far in database having this range of budget.

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5.1. User Requirements Validation: GUI description & testing (Cont.)

5.1.4. Show Investment Fields



The screenshot displays a user interface titled "Learn About Investment Fields". It features a 3x3 grid of investment categories. Each category is represented by a dark grey rectangular button containing the category name in yellow text, followed by a small white icon below it.

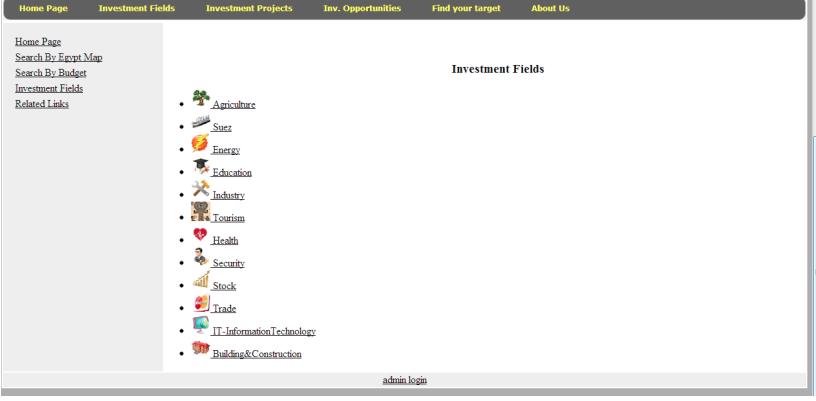
Learn About Investment Fields		
Agriculture	Suez	Energy
		
Education	Industry	Tourism
		
Health	Security	Other
		

fig. 5.4 Fields list gives the investor the option to pick an investment field to know about all its detailed information regardless of the place or the project budget. the figure shows only 8 fields and the ninth opens for the investor a complete list of all fields stored in our database, which will be shown the next page.

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5.1. User Requirements Validation: GUI description & testing (Cont.)

5.1.5. Show Investment Fields



The screenshot shows a navigation bar with links: Home Page, Investment Fields (highlighted), Investment Projects, Inv. Opportunities, Find your target, and About Us. On the left, there's a sidebar with Home Page, Search By Egypt Map, Search By Budget, Investment Fields (highlighted), and Related Links. The main content area is titled 'Investment Fields' and lists various investment fields with icons: Agriculture, Suez, Energy, Education, Industry, Tourism, Health, Security, Stock, Trade, IT-InformationTechnology, and Building&Construction.

fig. 5.5 Shows complete list of Investment fields. This page is found by investor from 3 interfaces: home page shown a page earlier, navigator bar- Fields option, or finally from right menu, this list lets investor pick an interesting investment field and show all of its details, we will show an example for a picked field page

5.1.6. Picked Investment Field Details



The screenshot shows a navigation bar with Home Page, Search By Egypt Map, Search By Budget, Investment Fields (highlighted), and Related Links. The main content area is titled 'Investment Field: Health' and shows 'Opportunities in Health' and 'Opportunities # 1'. Below it, 'Opportunity Description:' is listed as 'fresh air, goodgood view' and 'Place:' is listed as 'Alexandria'.

fig. 5.6 is the page generated for the investor who chose to check Health Investment Field, the shown result only a sample data, it is testing the generated page if it will get dynamically the detailed information about chosen field and it worked very well.



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5.1. User Requirements Validation: GUI description & testing (Cont.)

5.1.7. Picked place Investment Details

Home Page Investment Fields Investment Projects Inv. Opportunities Find your target About Us

Home Page
Search By Egypt Map
Search By Budget
Investment Fields
Related Links

Investment Field(s) for Place: Hurghada2

Opportunity Description:
Wonderful Views2

Investment Field:
Tourism

Opportunities in Hurghada2

Opportunity Description:
sell things to tourists

Investment Field:
Trade

admin login

fig. 5.7 shows the result of seach by map picking a place, the figure is a result of picking a place called Hurghada2, which shows that Hurghada2 has opportunities in both fields trade and tourism, on updating the database for this place the shown result is dynamically updated.

 ISSR Computer Science Diploma project: Egypt Investor Information System (EIIS) 

5.1. User Requirements Validation: GUI description & testing (Cont.)

5.1.8. Related Links

Investment Opportunities: opportunity in field health in Alexandria => | opportunity in field health in Alexandria =>

Home Page Investment Fields Investment Projects Inv. Opportunities Find your target About Us

Home Page Search By Egypt Map Search By Budget Investment Fields Related Links

Websites Directory:

- Egyptian Small Projects Aiding website
- General Authority For Investment
- Egyptian Ministry of Investment

admin logout

fig. 5.8 The investor has the option to surf other powerful links related to the context of Investment in Egypt, this list of websites is continuously updated.



5.1. User Requirements Validation: GUI description & testing (Cont.)

5.1.9. Admin-login-logout

Here we will test the admin tasks appearing disappearing when login and logout respectively

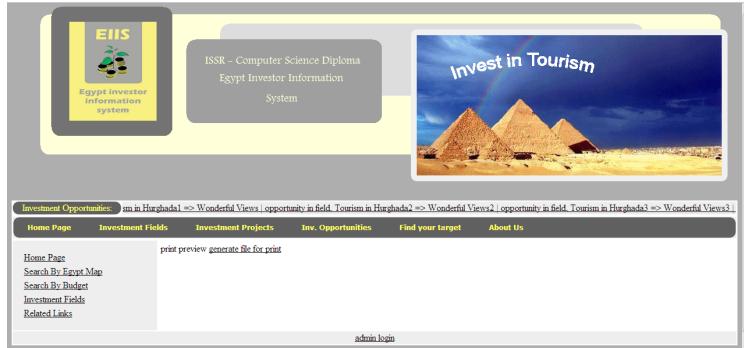


fig. 5.9 The admin is about to login, notice the tasks do not appear in the right menu.



fig. 5.10 The admin clicked the link button to login, the form appeared to enter name and password.



fig. 5.11 After the admin entered name and password correctly the system gives authority to display admin tasks on right menu as shown in figure.



5.1. User Requirements Validation: GUI description & testing (Cont.)

5.1.10. Admin-Identify Place Coordinates

This is one of the system options given to administrator to identify place on map, gets its coordinates as a preparing step to visualize its fields on Egypt map.

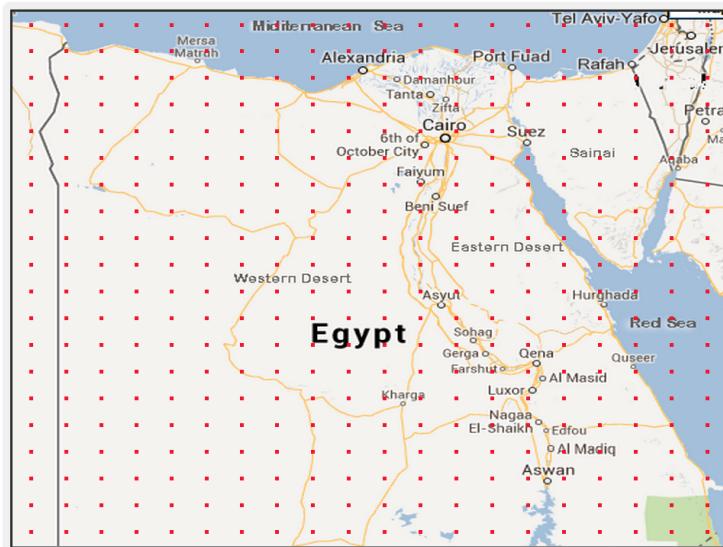


fig. 5.12 shows the map with red mark for each recordable place, admin can name any marked place on map to then be assigned fields, projects, opportunities to be shown to the investor dynamically.

Place name:	<input type="text"/>
coordinate: row,col	<input type="text"/> 00 <input type="button"/> <input type="text"/> 00 <input type="button"/>
save	

fig. 5.13 shows the form by which admin inserts new name for the picked coordinate on previously shown map.

ISSR Computer Science Diploma project: Egypt Investor Information System (EIIS)

5.1. User Requirements Validation: GUI description & testing (Cont.)

5.1.11. Project Document Generation

This is an additional task we've made to generate our document well formed at a glance, instead of using MS Word program that sometimes consume time styling the document. this page is implemented as a webpage of the system under category 'about us'.

fig. 5.14 this page appears on clicking the navigator bar -> about us-> project documentation.

fig. 5.15 shows the generated document in your hands.



Chapter 6: Conclusion & Future work

6.1 Conclusion

After performing the research we concluded:

- Investment in Egypt is a high priority goal especially in this stage, so we have to encourage internal & external investors
- Encouraging investors is by providing full information about Egypt market, investment fields, projects, opportunities and risks' solutions
- Egypt Investor Information system achieved goals by being a website no need for special software installation
- Database is being updated easily via system administrator interface
- Investor can find information easily by our simple and attractive GUI that provides searching by different means: map, field, opportunity, project budget ... etc

6.2 Future Work

- In future we plan to add artificial intelligence component into our system to add intelligent features of deduction and prediction of investor's interest, display most interesting projects according to his/her backgrounds, budgets...etc.
- We also plan to enhance system security to apply cryptography and prevent any possible SQL-injection attack to preserve data integrity and safety that we already did most of it by separating data entry code from GUI interfaces
- Building a semantic module to be able to convert some risks into investment opportunities under supporting situations, for example the absence of security at some times at some places can be converted into an opportunity, as happened already if supporting laws are executed by investing in security companies.
- System in future is planned to minimize the weaknesses point effect, some risks will be converted into investment opportunities
- System is planned to gather data concerned with investment in Egypt electronically by softbots



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- Craig Larman 'Applying UML and Patterns 2nd edition, 2004.'
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- Tim Converse and Joyce Park with Clark Morgan, 'php5 and mysql bible',2004



Appendix A: System Installation

This Appendix illustrates how to install the system on your machine as a localhost, you can find every resource mentioned here on the (EIIS) project delivery CD

1. you have to install:
 1. apache webserver: httpd-2.2.21-win32-x86-openssl-0.9.8r
 2. dot net framework: dotNetFx40_Client_setup
 3. java runtime: jdk-7u6-windows-i586
 4. mysql server 5 : mysql-5.5.27-win32
 5. mysql-gui-tools-5.0-r17-win32
 6. php-5.2.17-Win32-VC6-x86
2. on c driver put this folder as is : final delivery package\installation package\PHP\
3. Configure Apache and PHP as shown in: final delivery package\installation package\
4. Run the mysql script file found in :final delivery package\installation package\database backup
5. Find the documentation in path: final delivery package\installation package\Documentation.