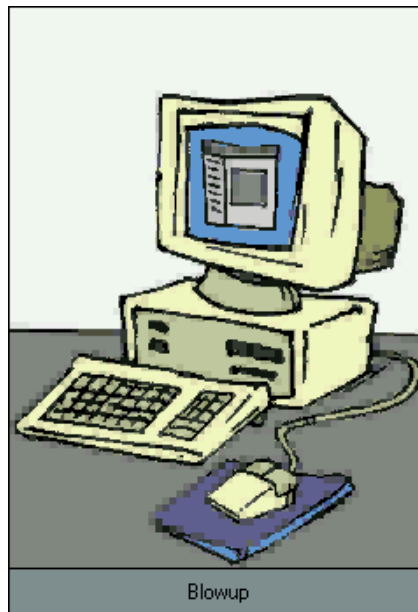


King Fahd University of Petroleum & Minerals
Information & Computer Science Department
ICS 350 – Cooperative Work
Second Semester 2003 (022)

Progress Report # 01

For period 1-March-2003 to 20-April-2003



Prepared for:
Talal H. Maghrabi

By:
Mujahed Al-Gassab
985621

Supervisor:
Abdul Aziz S. Al-Akkas

Signature:

17 April 2003



ARAMCO
PIPELINES DEPARTMENT
PIPELINE TECHNICAL SUPPORT DIVISION (PTSD)
PIPELINE TECHNOLOGY APPLICATION UNIT (PTAU)

COOP Progress Report # 01
ARAMCO / Pipelines
For: Mujahed Al-Gassab

Student Details

Name	Mujahed Ahmed Al-Gassab
ID #	985621
University	King Fahd University of Petroleum and Minerals
Major	Computer Science

Employment Details

Company	ARAMCO
Division	Pipeline Technical Support Division (PTSD)
Unit	Pipeline Technology Application Unit (PTAU)
Supervisor	Abdul aziz .S Al-Akkas

Introduction:

Currently, I am working in Saudi Aramco Company at the Pipelines Department. I am in the Pipelines Technology Application Unit (PTAU) of the Pipelines Technical Support Division (PTSD). I have been assigned to work as an Application Developer. My supervisor is Mr. Abdul aziz S. Al-Akkas.

The supervisor gave me a brief introduction about the department structure and its roles. He also defined the Responsibilities and tasks that are performed by Application Developer:

- Automate manual processes using Information Technology approaches.
- Utilize existing technology to increase productivity and improve efficiency.
- Analyze existing systems to identify potential enhancements if any or recommend other possible solutions.
- Work on existing system enhancements.
- Develop new systems.
- Handle any assigned projects completely.
- Work on any task that is assigned to me that includes planning, design, construction, documentation, reporting, etc.

Objectives of the first two months of training:

- Understand and get used to the work environment and get an actual hands-on experience before graduation.
- Knowing the type of technologies needed in the real industrial environment, which will guide me to the areas of my study that I should concentrate on.
- Get an idea about an application developer's responsibilities and duties.
- Take responsibility of real-world projects and utilize the possible problems that I might face when working on other projects in the future.

- Learn how to deal with customers; understand their problems and see what are the possible solutions that can be provided to them using the Information Technology approaches.
- Develop the habit of teamwork and understand its importance.
- Improve my communication skills that are necessary among team members and with customers.
- Learn from the company and participate in improving its productivity as much as I can in this relatively short period of time.

Summary of working plan:

- Study and understand Visual Basic and learn how to use it to write programs.
- Understand how to work with Microsoft Access Database.
- Taking the responsibility of the Low Value Asset System (LVA):
 - Planning for the project and determining its phases.
 - Study and analyze the existing LVA system.
 - Collect information from customers to meet their requirements.
 - Study how the Low Value Asset System will be implemented and what are the requirements and constraints.
 - Redesign the database and user interface.
 - Implement the new database and user interface and write VB code between the LVA database and the application program.
 - Test the product and fix errors.
 - Deliver the product to the customer and help them to install it in their machines.
 - Support & Maintenance.

Key learning points:

- I have become familiar with Visual Basic 6 and Microsoft Access Databases.
- I have developed the ability to program using VB and handle projects that are used in a real world working environment.
- I have become able to take responsibility of a given task and projects.
- I have understood how current systems work and how they are implemented and what are their limitations and how to develop possible solutions.

Other comments or issues:

- I received my access to use computers in the company on the third week of my COOP training period, which prevented me from starting some of the projects and made the communication with other employees harder.
- People here are very friendly and cooperative. They helped me to become more involved in the work and more comfortable with the working environment.

Schedule of Major Tasks (Week 1-8)

WEEK	TASK	COMMENTS	DATES
1	Familiarization with working environment	<ul style="list-style-type: none"> • Familiarization to the working environment and organization. • Attended the first Pipelines PDPs meeting. • Visited the SAECO Valve Repair Facility. 	1-March-2003
2	Studying Matrials	<ul style="list-style-type: none"> • Familiarization with languages and databases used in the department. 	8-March-2003
3	Studying Matrials	<ul style="list-style-type: none"> • Study Visual Basic and Microsoft Access Database. 	15-March-2003
4	Start Projects	<ul style="list-style-type: none"> • Start working on the Low Value Asset System. • Analyze existing LVA system. • Collect the requirments from customer. 	22-March-2003
5	LVAS	<ul style="list-style-type: none"> • Redesign and implement LVAS database. 	29-March-2003
6	LVAS	<ul style="list-style-type: none"> • Design and implement LVAS user interface. • Writing VB code. 	5-April-2003
7	LVAS	<ul style="list-style-type: none"> • Test & Debug the System. • Final review of the system and make it ready to use.(acceptance test) 	12-April-2003
8	LVAS	<ul style="list-style-type: none"> • Write the required user and system manuals. • Install the system on the user machine. • Support & Maintenance 	19-April-2003

Description of the Accomplished Work

A) Tasks Accomplished

- Analysis of the existing LVA system.
- Collect information from customer for the Low Value Asset System to meet their requirements.
- Redesigne the Low Value Asset database that include tables, Relationships, Query and Reports that are required by the customer.
- Implement the LVA database in MS Access.
- Design & Implement the LVA User Interface using the Microsoft Visual Studio 6 which include menus and forms.
- Writing VB Code to manage the data between the database and the user interface; that include connecting to the database and write VB code to add, update and delete data from the LVA Database.

B) Approaches Taken to Accomplish Tasks

- Use the Waterfall Model to Design and implement the system.

C) Experience Gained

- Learned how to work with Access databases and Visual Basic.
- Learned how to deal with customers and how to meet their requirements and needs.

D) Techniques Learned

- Learned the different techniques that are used to connect databases e.g. ActiveX Data Object (ADO) and Jet Engine.
- Learned some techniques that are used to enforce different levels of Security on the system.

Description of the Unaccomplished Work

A) Unaccomplished Work

- Demonstrated the LVA system to Mr. Adel H. Al-Jefri and Mr. Abdul aziz Al-Akkas.
- Writing user and system manuals.
- Final review of the system, test, debugged and fixed errors.
- Finished working on the Low Value Asset System.
- Operate the system and deliver it to the customer.
- Help the users of LVAS to install the System and demonstrate to them how the system works.
- Continue supporting the LVAS enhancements and maintenance.
- The System should be ready by Sun 20-April-2003.

Work Plan for the Coming Period

- In the next months I will study ASP.NET with VB.NET and develop a new project to emphasize on these concepts that I will learn.
- Start the new project that will be decided by the supervisor.
- Collect information from customer to meet their requirements and needs.
- Analyze the system tasks and functions.
- Design the database, user interface and write code for it.