

Executive Summary

Ernst & Young is an international company operates in several countries including Turkey. Ernst & Young provides a range of services, including accounting and auditing, tax reporting and operations, tax advisory, business risk services, technology and security risk services, transaction advisory, and human capital services.

Dass Company achieved to build a solution for License Management System for Ernst & Young Company's IT Department in Turkey. Our basic aim is to help the IT Specialists in Ernst & Young to prepare the quarterly license report which is sent to Ernst & Young International License Centre.

The Centre chooses the Programs which are used in the Company and the International License Centre of Ernst & Young Company expects quarterly reports about which programs used in which departments and how many user installed the programs. Our system also provides convenience for tracing program installments in the Company. Thus IT Personals and IT head could follow the Program installment and License procedures more easily. So that the operation of the IT Department become faster and License costs could be minimized.

The License Tracing System Project

Project Overview

Dass Company began to build a License Tracking System for Ernst & Young Turkey's IT Department to provide the IT Head a Clear Picture of the License Status of the Company to make the Managerial Decisions on licensing a program easier. IT Specialist in the Ernst & Young can also see the License flow status in the Company.

The License Tracing System's first mission to provide information for the Licensed Program's Status. When the Program's expire day comes, at most how many user could use the Licensed Program and prepares a warning when the maximum user amount is reached to prevent a legal problems.

The IT Department also wants to know the user profiles to install new programs to computer users or when a new computer is set up for a special user profile the program list should be listed for effective installment process. This requires the records of the program installments to the users in the company to retrieve the installment records according to The Departments and Titles of the users. Thus the IT Specialist could easily determine the programs for a new employed personnel or when Operating System of a user collapsed.

Keeping the records of the installments also provide convenience for an uninstallment process when expire date is reached. The current users of the programs could be retrieved from the records and uninstalled instead of asking all the users if the program installed in their computer.

The IT department is also communicates with program vendors and Prepare Training schedule for a new program. Also the new realized programs are also followed by the IT Personals to be well informed about the programs in the market. Since the Licensed are purchased by the Ernst & Young International Centre, The IT Department in Turkey only advices to have a license of a program.

The Customer Information

Ernst & Young provides a range of services, including accounting and auditing, tax reporting and operations, tax advisory, business risk services, technology and security risk services, transaction advisory, and human capital services. The Company practices also provide legal services in those parts of the world where permitted. Globally, Ernst & Young focuses on seven major industry groups: financial services; technology, communications and entertainment; energy, chemicals and utilities; industrial products; retailing and consumer products; health sciences; and real estate, hospitality and construction. Our practices provide specific services for additional industries on a country-by-country basis.

Globally, Ernst & Young focuses on seven major industry groups: financial services; technology, communications and entertainment; energy, chemicals and utilities; industrial products; retailing and consumer products; health sciences; and real estate, hospitality and construction. Our practices provide specific services for additional industries on a country-by-country basis.

Customer Contact:

Murat Aktürk - Chief IT Specialist
0212 315 30 00

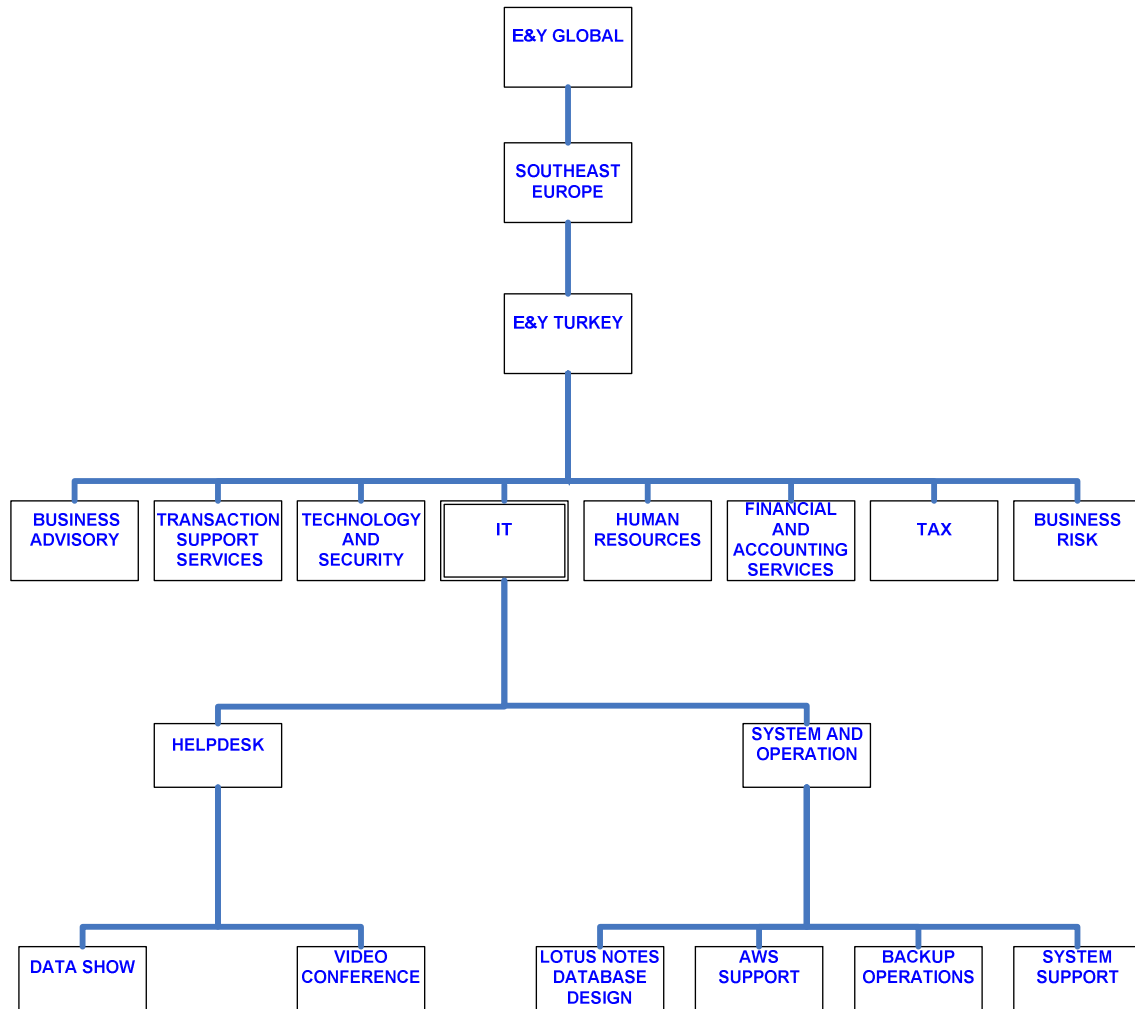
Customer Information:

www.ey.com
www.ey.com/GLOBAL/content.nsf/EYSEE/Locations_-_Turkey

Address:

Buyukdere Caddesi, Beytem Plaza No. 26 K 9-10 34381 Sisli
Tel: (90) 212 315 3000
Fax: (90) 212 230 8291

ORGANIZATION CHART OF ERNST&YOUNG



BUSINESS ADVISORY: E&Y's Business Advisory team can help firms have a broad perspective of firms' business operations, customer relationships and business partners. E&Y brings firms combination of expertise and best practices, delivered by E&Y's highly experienced business and finance experts. Such services include: Emerging growth company solutions. For companies in the beginning phase of their growth, Ernst & Young has a variety of solutions to help firms, including: developing sustainable dynamic business strategies; understanding and meeting firms' financial needs; and planning and executing transactions. Risk Management Services: E&Y offer services ranging from a Strategic Risk Assessment to a full scale Risk Management Transformation.

TRANSACTION SUPPORT SERVICES: Ernst & Young Transactions team can analyze and articulate the value and risk drivers prior to the transaction. . E&Y can assist firms in determining whether transaction strategy and processes are aligned with firms' business objectives and are operating effectively. .E&Y can also help the firms validate the accounting, legal and tax implications of the desired structure and financing approach - always focused on optimizing the transaction.

TECHNOLOGY AND SECURITY: Ernst & Young can help firms focus on fundamental as well as emerging IT issues as firms develop and execute plans to respond to stakeholder expectations. Our services are predicated on insights into how leading organizations prioritize their efforts to ensure that IT investments provide maximum security and risk mitigation in the most cost effective manner. E&Y's services include: Protecting IT assets against external viruses, cyber terrorism and other malicious attacks and internal security threats, ensuring software application controls integrity, improving IT processes

IT: IT is responsible for E&Y 's itself system and operation management and helpdesk management. IT manage system support, backup operations,AWS support , SecurID,iSPACE, Data Show and Video Conference, Lotus Notes Database Design and Development, Resource Planning and Inventory.

HUMAN RESOURCES: Its responsibilities include managing the administrative requirements of the recruitment process, maintaining and changing employee information on the database, administer starters and leavers process and manage paperwork, create HR files and filing, produce offer letters, contracts and references.

FINANCIAL AND ACCOUNTING SERVICES: Ernst & Young developed a set of professional services based on a high level of knowledge, technology, and efficiency to meet the needs of its clients. Ernst & Young can help its clients to put in place effective processes as a way to cut costs and help you achieve first-class operational excellence. E&Y' responsible team has extensive experience in re-engineering finance and accounting processes for a wide range of clients in a variety of industries. E&Y offers services include: Finance operations management, Partial outsourcing services, Finance and accounting assistance

TAX: E&Y's multi-disciplinary teams blend a strong knowledge of local tax regulations with leading international tax practice to help its clients to optimize the firms' tax strategy. Services E&Y offer include: Entry Strategy, Expatriates Taxation, Profits Tax, Withholding Tax, Value Added Tax (VAT, Value Added Tax (VAT), Tax Health Check, Transfer Pricing, and Support in Dealing with the Local Fiscal Authorities

HELPDESK: Questions related to hardware ,software and system coming from employees is answered by helpdesk. These question is answered by phone or email.

SYSTEM AND OPERATION: It manages system and operation which include system support, backup operations, AWS support, SecurID, Ispace, Lotus Notes database design and development.

About DASS Company

Dass Company founded in 2005 and our mission is being one of the leading Companies in Professional Solutions for IT Departments of International and High Scale Companies.

During the short period of time DASS Company succeeds to build fundamental establishment process for its future and begin one of the most creative IT solutions Project in the market, for Ernst & Young Company.

Now the Company mainly focuses on the Project of Ernst & Young License Tracing System. Leader of the Group is Faruk Çevik and his main responsibility is to establish cooperation in the group and distribute work load among Group Members. Kadir Telli focuses on System Build Processes for Projects. He tries to take a clear picture of the current System and find out the critical points which could increase the efficiency. Tolga Talay's main mission is to analyze the market, find out potential customers to inform them about our Company and evaluate the projects of competitor companies in the market. Bilal Faikoğlu is responsible for the operational continuousness in the Company. He appraises the projects and evaluates the solutions which our company reached at the end of the Project build Process.

Interview Notes

First Interview (14.10.2005)

DASS: Yeni çalışan alımlarında, kişilere bilgisayar tahsis edilirken hangi programların yükleneceğine nasıl karar veriliyor?

E&Y TURKEY: Yeni çalışanın bilgileri İnsan Kaynakları bölümünde tutulur. İşe başlayacağı zaman, bilgileri çalışacağı bölüme gönderilir. Çalışacağı bölümdeki görevine göre önceden belirlenen ve lisanslandırılmış programlar IT bölümü tarafından yeni elemanın bilgisayarına yükleniyor.

DASS: Yeni program yükleme isteği hakkında detaylı bilgi verir misiniz?

E&Y TURKEY: Değişen çalışma ortamları, gelişen teknoloji ve çalışanların değişik istekleri doğrultusunda yeni program talebi oluyor. Bu gibi talepleri karşılayabilmek için ilk önce istenen programın çalışanın bölümü için gerekli olup olmadığı kararlaştırılıyor daha sonra E&Y TURKEY bünyesinde lisanslanmış olarak kayıtlarımızda yer alıp almadığını kontrol ediliyor. Eğer kayıtlı değilse E&Y ILC' den yeni program talep ediliyor.

DASS: Hangi programların satın alınacağına nasıl karar veriliyor? Bu kararı kim yada kimler veriyor?

E&Y TURKEY: Biraz önce de belirttiğim gibi yeni program talebi E&Y ILC' ye iletiliyor ve programın alım ve lisanslama işlemleri E&Y ILC tarafından yapılıyor. E&Y TURKEY' e de olumlu veya olumsuz cevap dönülüyor.

DASS: Lisans takip sürecinde, raporlama sistemi ile ilgili bilgi verebilir misiniz? Bu raporları kimler, ne amaçla kullanmaktadır?

E&Y TURKEY: Programların lisans durumları hakkında E&Y ILC' yi bilgilendirmek için 3 aylık olarak rapor düzenlenir. Raporlar, şu anda kullanılan programların lisans ve kaç kişiye kurulduğu hakkında bilgiler içerir. Raporlar, IT departmanı tarafından hazırlanıp E&Y ILC' ye gönderilir.

DASS: Yeni çıkan programları takip edebiliyor musunuz? Nasıl haberiniz oluyor?

E&Y TURKEY: Yeni program alımı E&Y ILC bünyesinde gerçekleştirildiğinden yeni çıkan programlar hakkında bir çalışmamız olmuyor. Sadece yeni çıkan program eğitimi ile ilgili olarak programı kullanacak çalışanı eğitime gönderiyoruz. Bu işlem de E&Y ILC tarafından yapılıyor.

DASS: Lisans değişim veya uzatma süreci hakkında kısa bilgiler verip, karar mekanizmalarını anlatabilir misiniz?

E&Y TURKEY: 3 ayda bir düzenlenen lisans raporlarıyla E&Y ILC bilgilendiriliyor. Eğer aynı kategoride değişik bir program kullanılmaya başlanacaksa eski programın lisansı iptal edilip çalışanlara yeni programlar yüklenir veya lisans süresi uzatılarak aynı program kullanılmaya devam eder.

DASS: Lisans süresinin dolmasından nasıl haberiniz oluyor? Bunun için bir veritabanı kullanıyor musunuz?

E&Y TURKEY: Şirketimizde kullanılan programların lisans ve kategori bilgilerinin tutulduğu bir veritabanı vardır. Burada programın lisanslandığı tarih, lisans bitiş tarihi, program isim ve tipi, versiyon ve üretici firma gibi bilgiler yer alır. Her ay E&Y ILC' ye sunulan raporda da lisans bitiş tarihi belirtilir.

DASS: Program verimliliği araştırması yapıyor musunuz? Bu süreci anlatır mısınız?

E&Y TURKEY: Evet, program verimliliği araştırması yapıyoruz. Her çalışan kullandığı program hakkındaki görüşlerini, değerlendirmelerini yapıyor ve IT departmanı da bu görüşleri her ay gönderilen raporun ilgili programla alakalı bölümüne ekliyor. Daha sonraki karar aşaması E&Y ILC' ye kalıyor.

DASS: Kullandığınız lisans takip sistemi hakkında bilgi verir misiniz? Bu sistem bilgisayar ağı üzerinden mi kullanılıyor?

E&Y TURKEY: Şu anda şirketimizde kullanılan sistemde H&R yeni çalışanın bilgilerini kendi veritabanına kaydeder ve bilgileri IT' ye gönderir. IT de bu bilgilere yüklenecek programları ekleyerek yeni bir veritabanı oluşturur. Daha sonra da çalışanın masasına gidilip yüklemeler yapılır. Lisansı iptal edilen ve yeni lisanslanan program bilgisi E&Y TURKEY' e gönderilir. Kendi veritabanından ilgili programı siler veya yeni programı ekler.

DASS: Kimlerin firma içi veya firma dışında yeni lisanslı program kurmaya yetkisi vardır?

E&Y TURKEY: Yeni lisanslı program yükleme işlemi IT departmanı çalışanları tarafından ilgili çalışanın bilgisayarına yüklenir.

DASS: Kullanıcı lisanssız yazılım kullanırsa, Sorumluluk kime aittir? Cezayı kim karşılar?

E&Y TURKEY: Çalışanların kullanıcı hesapları, program yüklemelerine elverişli olmadığı için E&Y tarafından gönderilen lisanslı programlar haricinde yükleme yapamaz. Fakat bu yasağı ihlal eden çalışan olursa sorumluluk çalışanın kendisine aittir ve cezayı da ilgili çalışan karşılar.

DASS: Program gereksinimlerini göz önünde tutuyor musunuz?

E&Y TURKEY: Elbette programın yükleneceği bilgisayarın konfigürasyonuna dikkat ediyor ve onun gereksinimlerine göre bilgisayarları bulunduruyoruz.

Second Interview (21.11.2005)

DASS: Lisanslama sürecinde IT' in rolü nedir?

E&Y TURKEY: IT' in rolü, lisanslanmış programları çalışanlarımızın kullanımına hazır hale getirmek ve lisans anlaşmamızın bittiği programları da sistemimizden kaldırmaktır. Bunun yanında güncellenmiş programları sistemimize yüklemektir.

DASS: Sisteminizden bir programın yüklenmesi nasıl olmaktadır?

E&Y TURKEY: Çalışanlarımızla telefonla irtibata geçeriz ve yükleme için randevulaşırız. Randevu zamanında çalışanımızın bilgisayarını alıp yüklemeleri yapıp, teslim ediyoruz.

DASS: Program seçiminde hangi kriterlere bakıyorsunuz?

E&Y TURKEY: E&Y ILC tarafından karar veriliyor hangi programların satın alınacağına ve tüm dünyadaki E&Y bürolarına bu lisansı alınmış programlar gönderilmektedir.

DASS: Bu raporda başka hangi bilgiler yer almaktadır?

E&Y TURKEY: Lisans bilgileri, programın toplam kaç kişiye kurulduğu, hangi departmanlarda kullanıldığı gibi bilgiler yer almaktadır.

DASS: Yüklenecek program hakkında çalışanlarınızın yeterli olup olmadığını kontrol ediyor musunuz?

E&Y TURKEY: Programın alındığı firmanın Türkiye' deki yetkilileriyle görüşüp, çalışanlarımızı bu eğitimlere yolluyoruz.

DASS: Yeni aldığınız personele kullanılan programlar hakkında bir eğitim veriyor musunuz?

E&Y TURKEY: Yönetim tarafından belirlenmiş programlar hakkında şirket içi eğitim veriyoruz. Diğer kullandığımız programlar hakkında ise belli bir bilgi seviyesinde olan insanları seçiyoruz.

DASS: Yeni alınan personele hangi programları yükleneceğini nasıl tespit ediyorsunuz?

E&Y TURKEY: İnsan Kaynakları departmanı bize yeni personelin hangi departmana alındığını ve pozisyonu bilgilerini bildiriyor. IT elemanlarımızda bunlara göre gerekli programları yüklüyorlar.

DASS: Şirketinizdeki yazılımların lisans süresinin dolmasından nasıl haberdar oluyorsunuz?

E&Y TURKEY: E&Y ILC bize lisansı bitmiş yazılımların listesini düzenli olarak yollar. Biz bu raporlara göre bu süreci takip ederiz. Bu raporda yazılımla ilgili her türlü yazılım bilgisi mevcuttur.

DASS: Kime hangi programın yüklü olduğunu takip ediyor musunuz?

E&Y TURKEY: Çalışanlarımızın bilgisayarlarına yüklediğimiz programları listeleyip çalışanın kendi dosyasına ekliyoruz. İhtiyaca göre yeni program geldiğinde veya program değişikliğinde değiştirmeleri listeye ekliyoruz.

According to interviews we made with E&Y Company, We understand their working structure and we build our Diagrams. Then Dass Company will build a web based System for their convenience to provide an improved solution for License Tracking System.

CONTEXT DIAGRAM

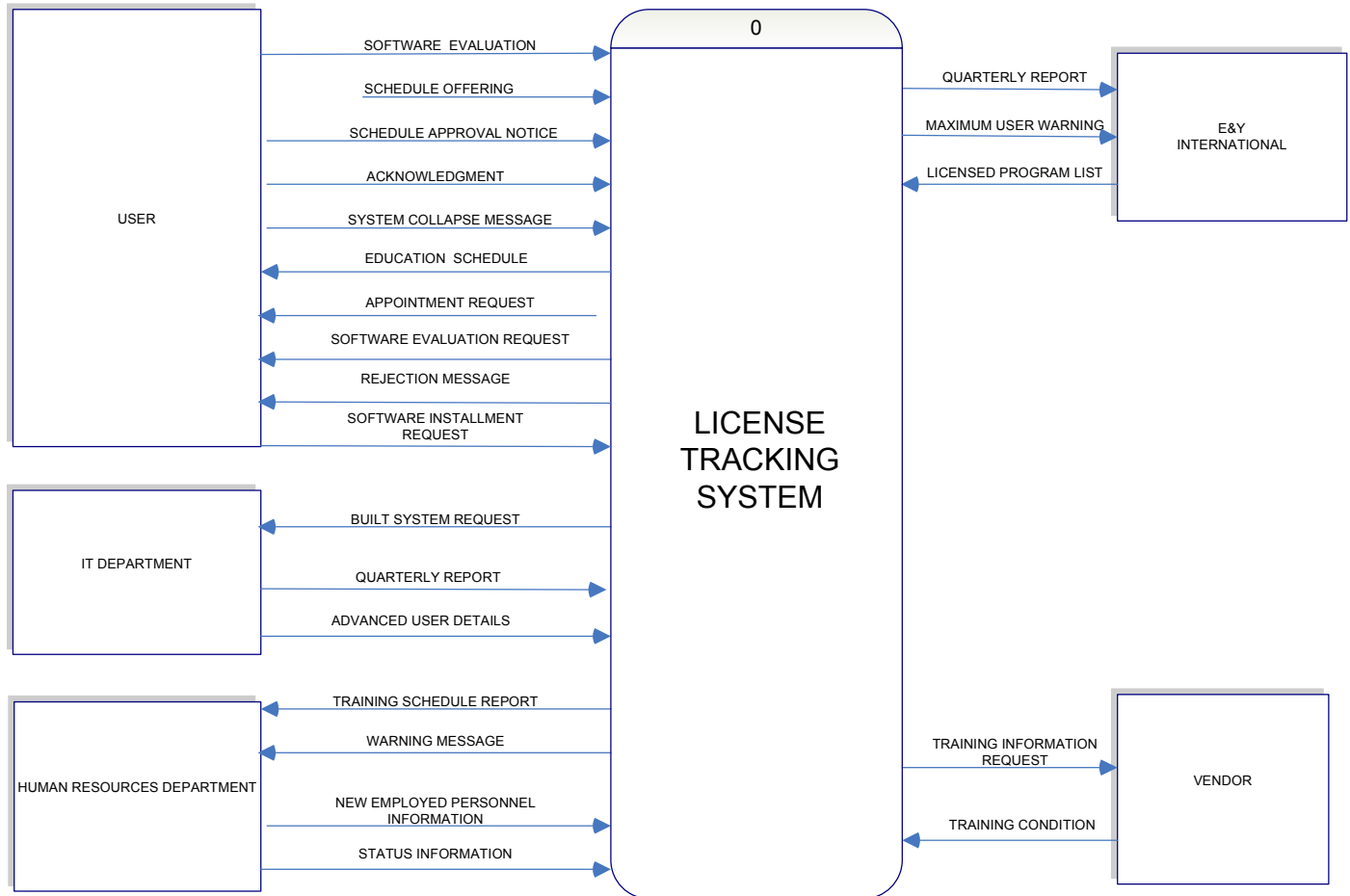
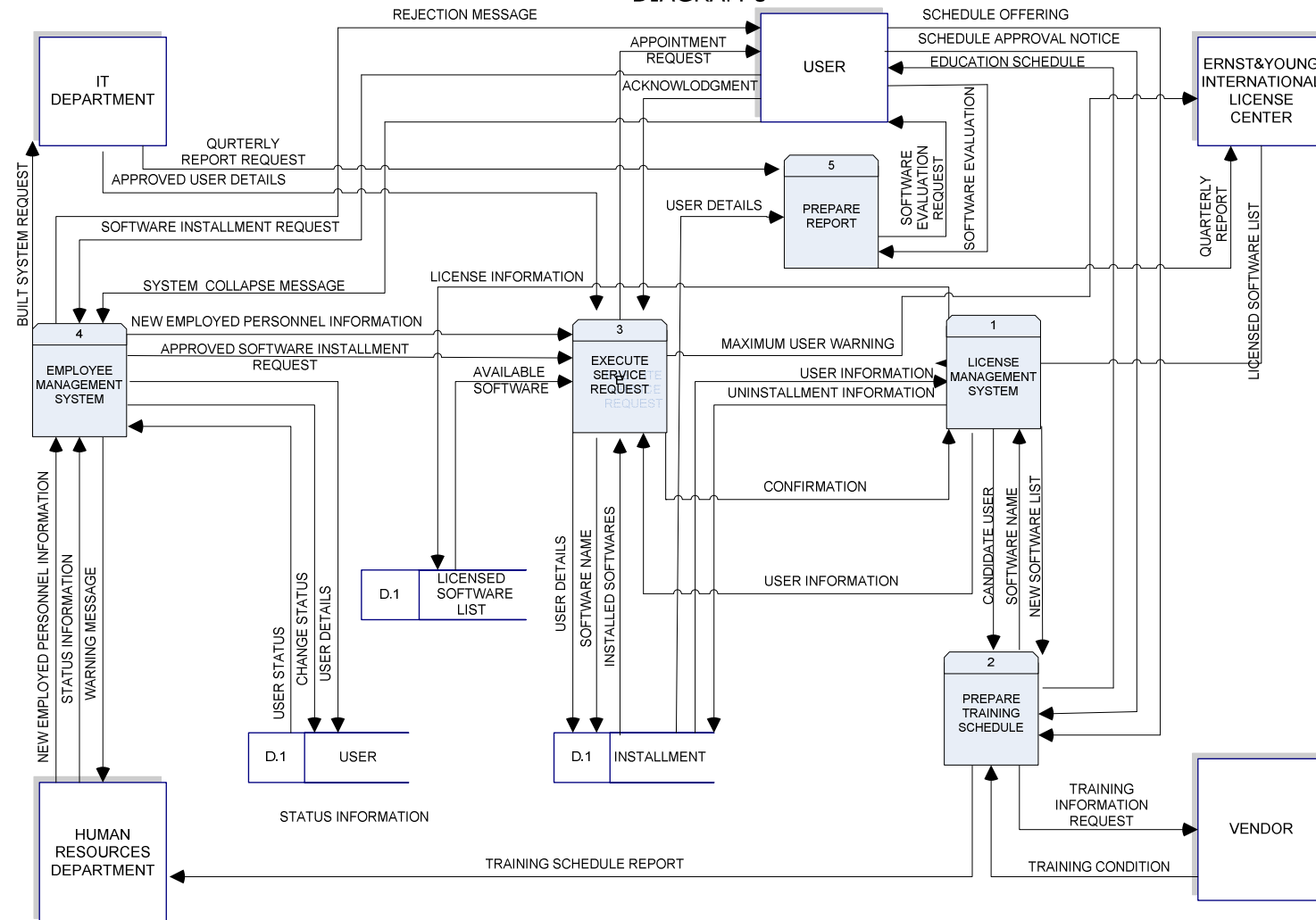
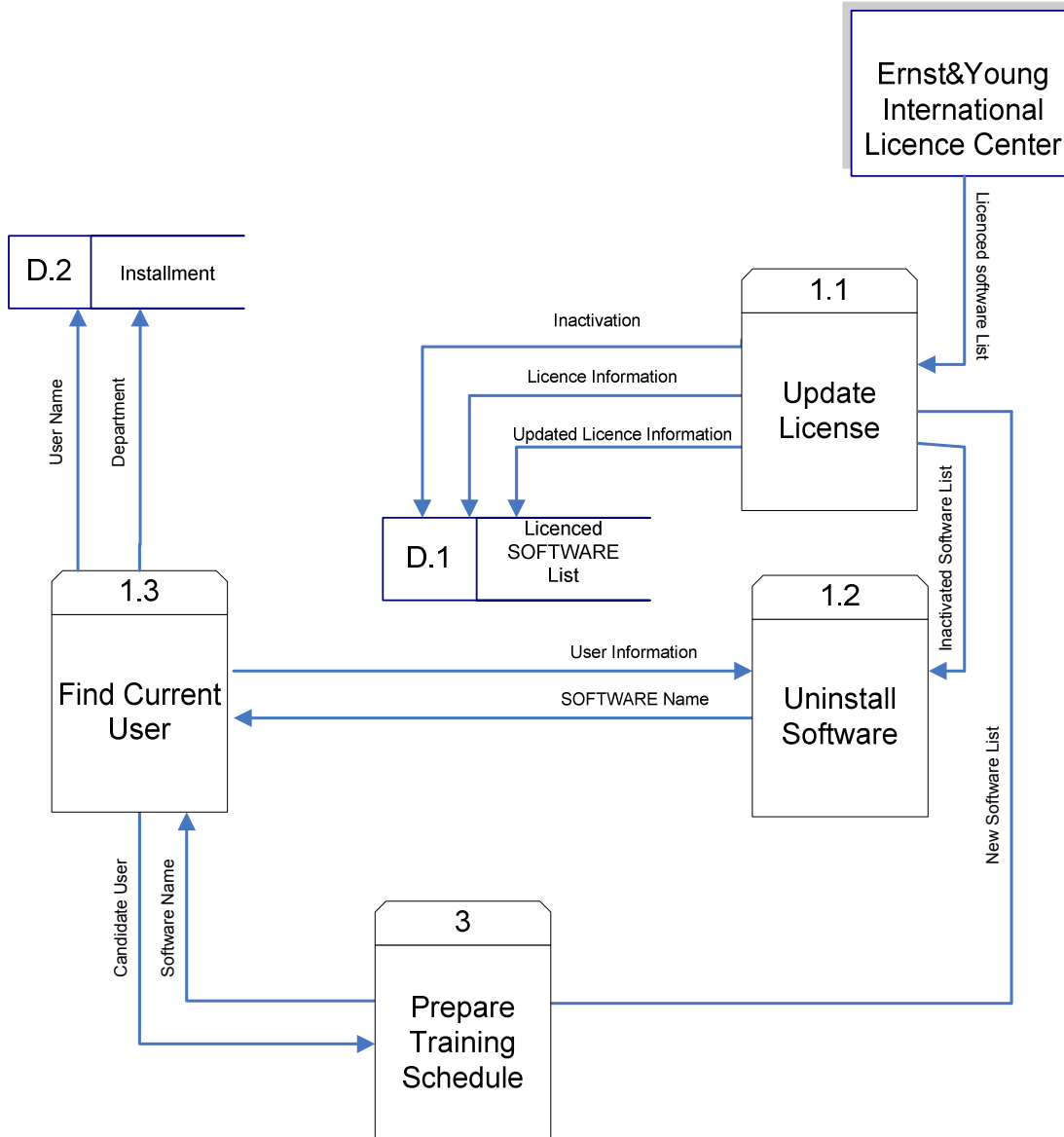


DIAGRAM 0

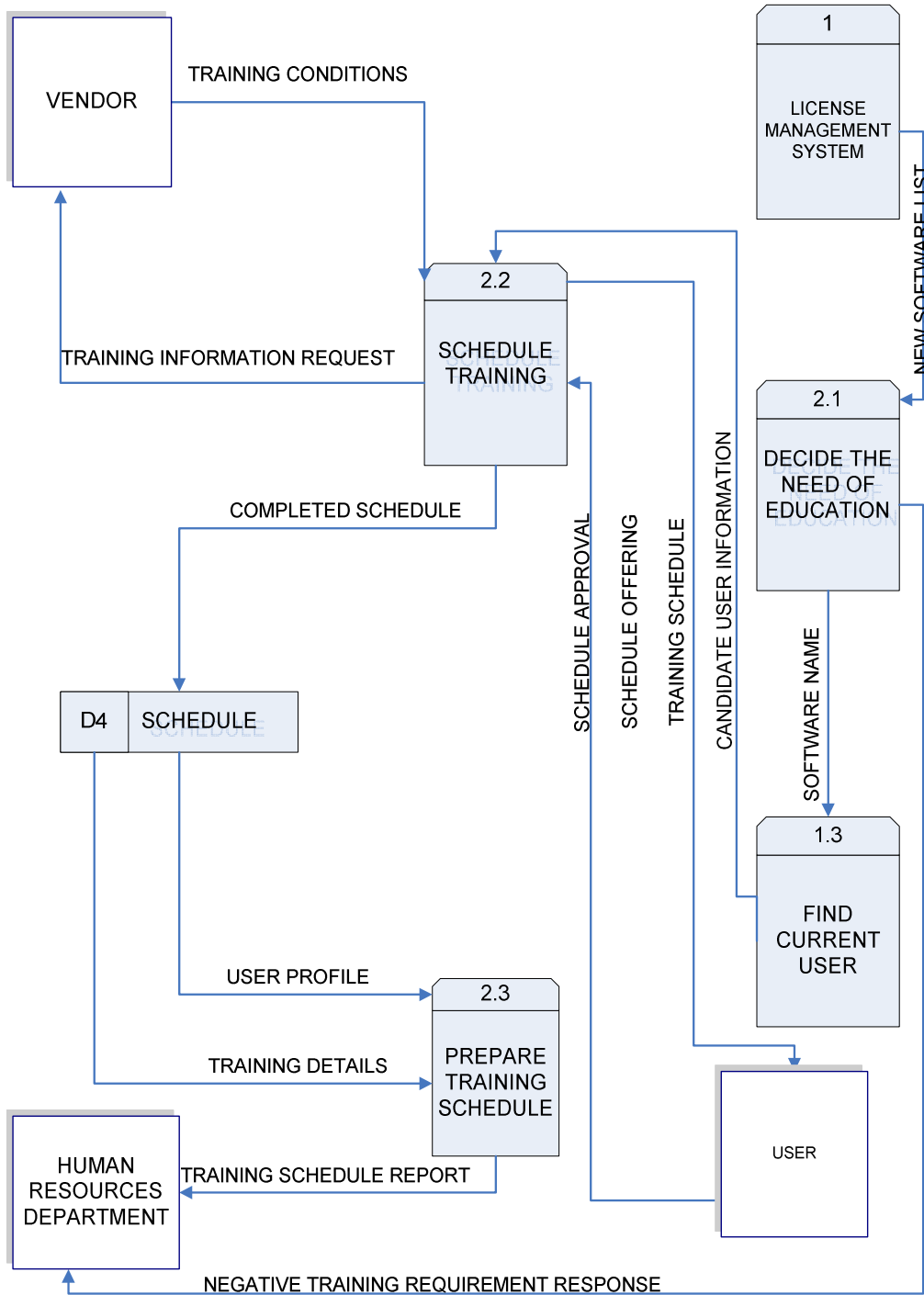




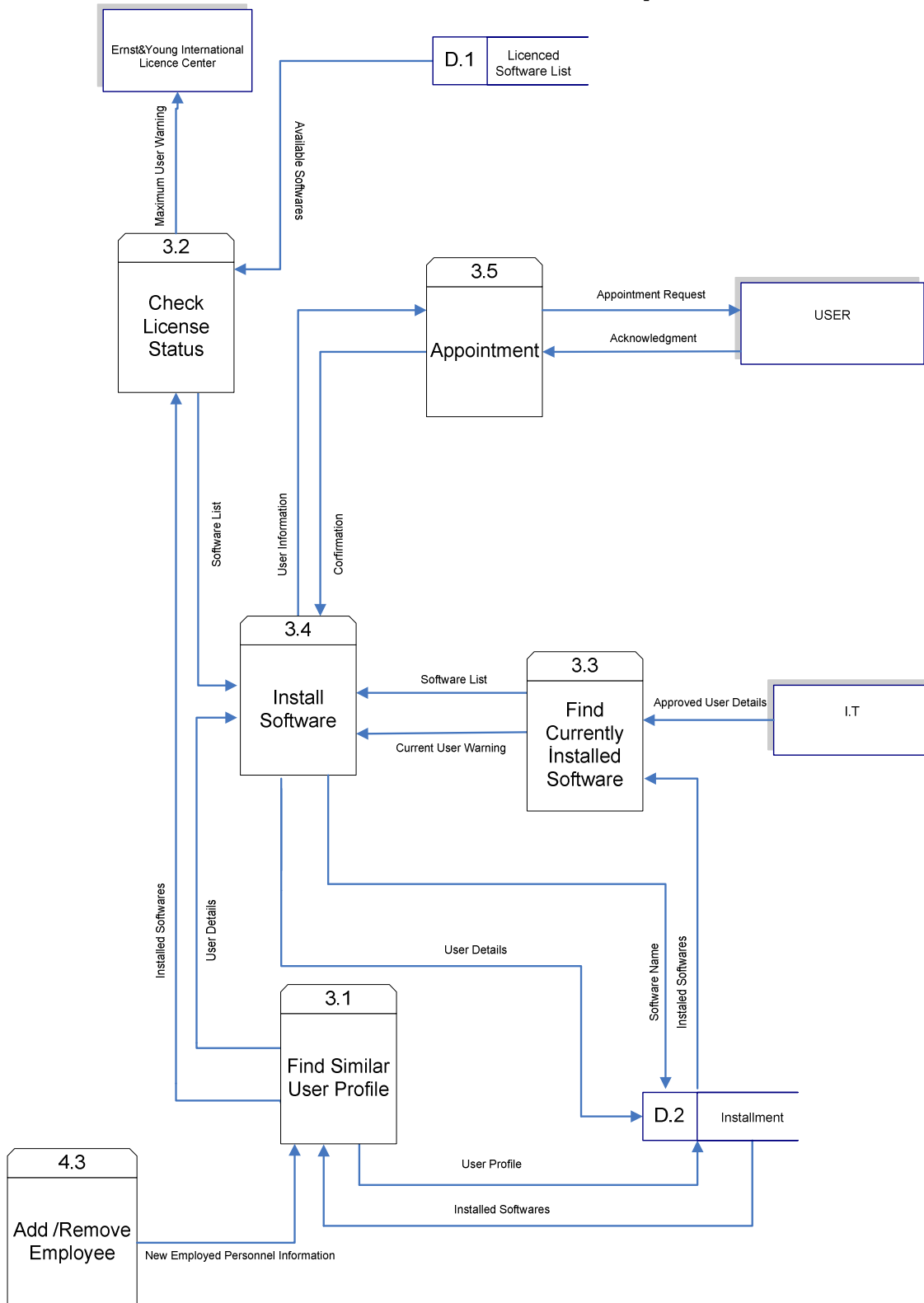
License Management System Process



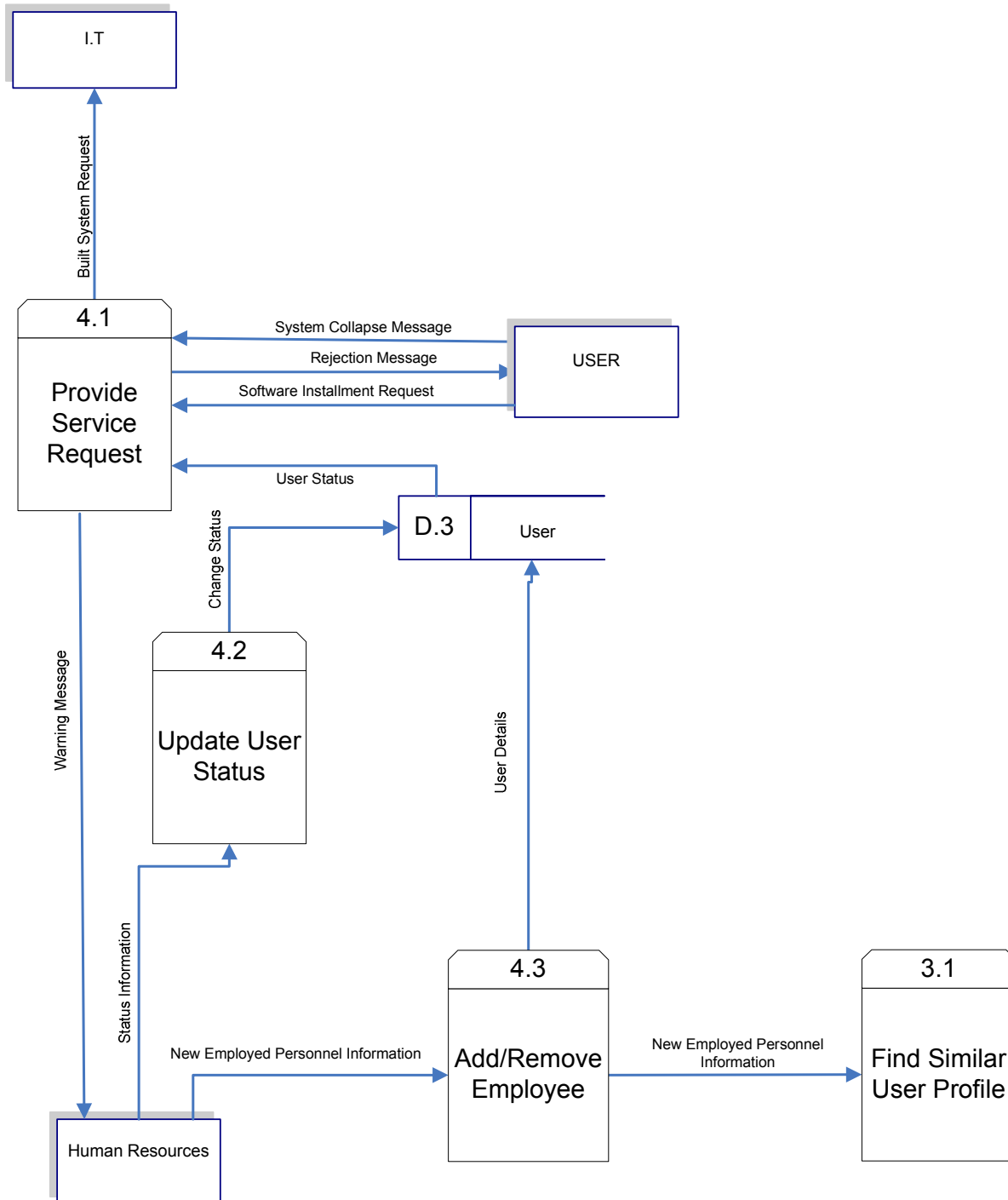
Prepare Training Schedule



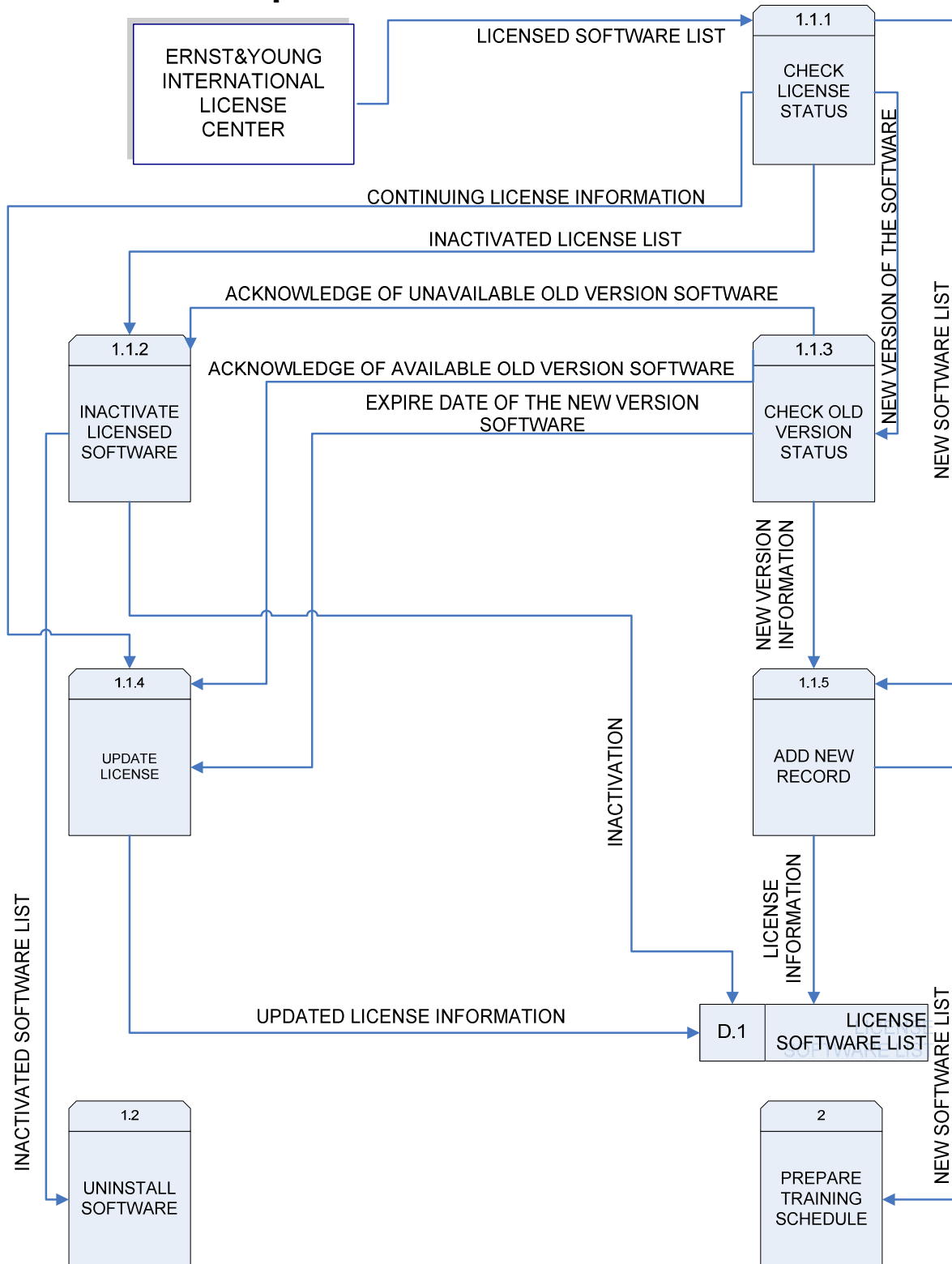
Execute Service Request Process



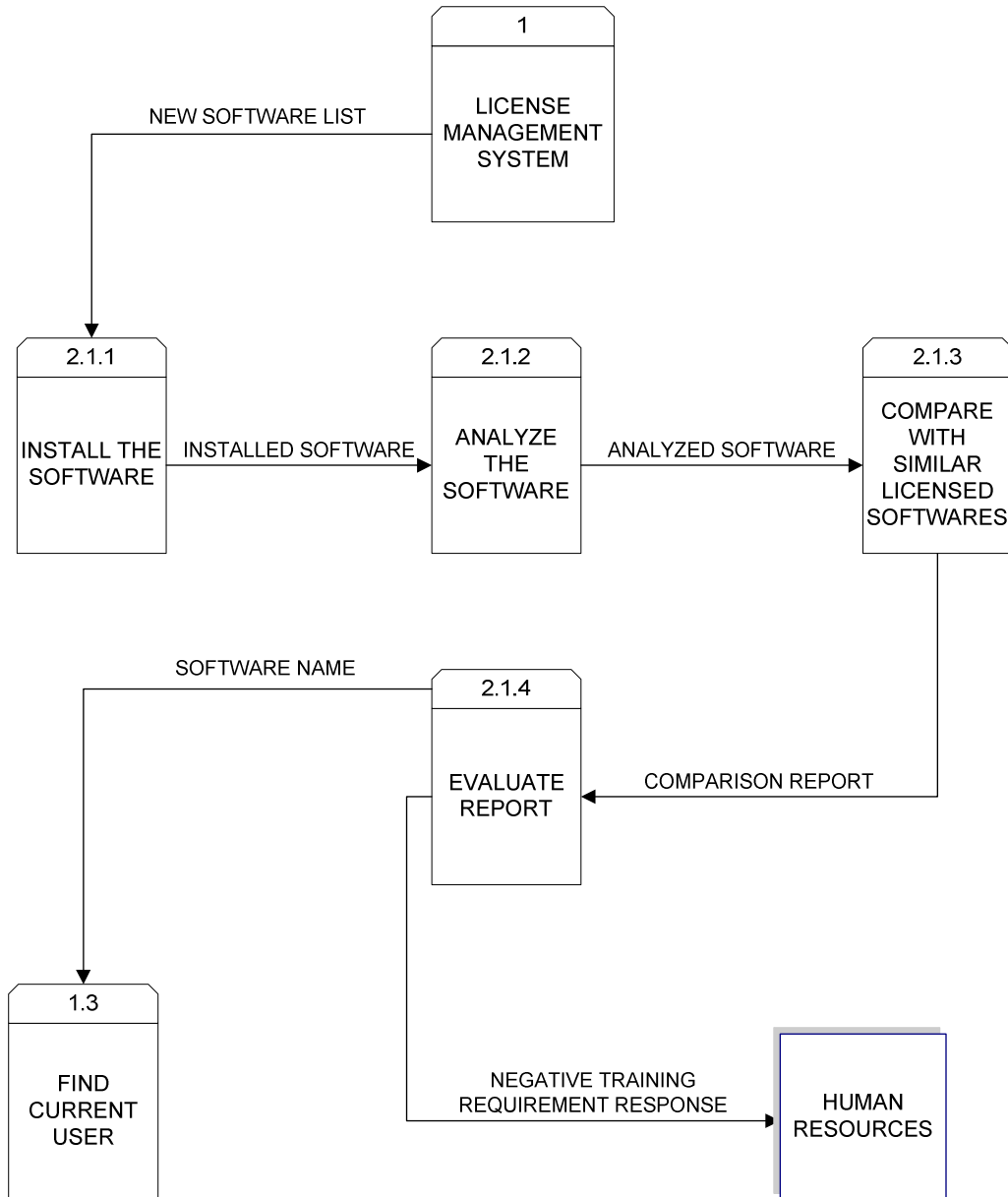
Employee Management System Process



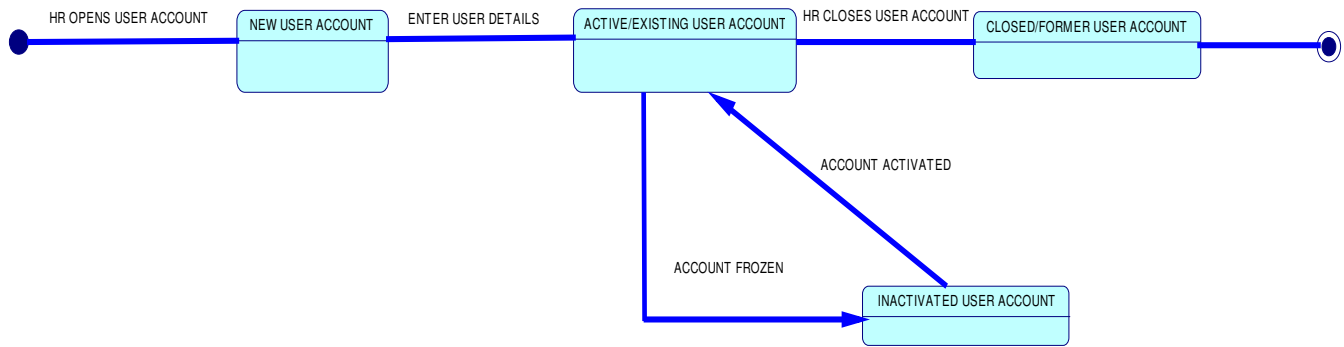
Update License Process



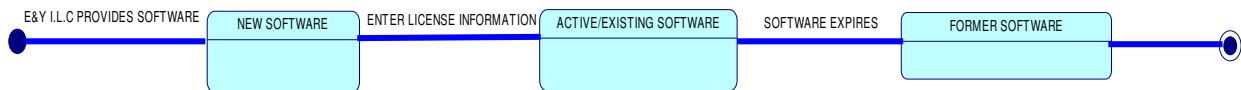
Decide The Need of Education Process



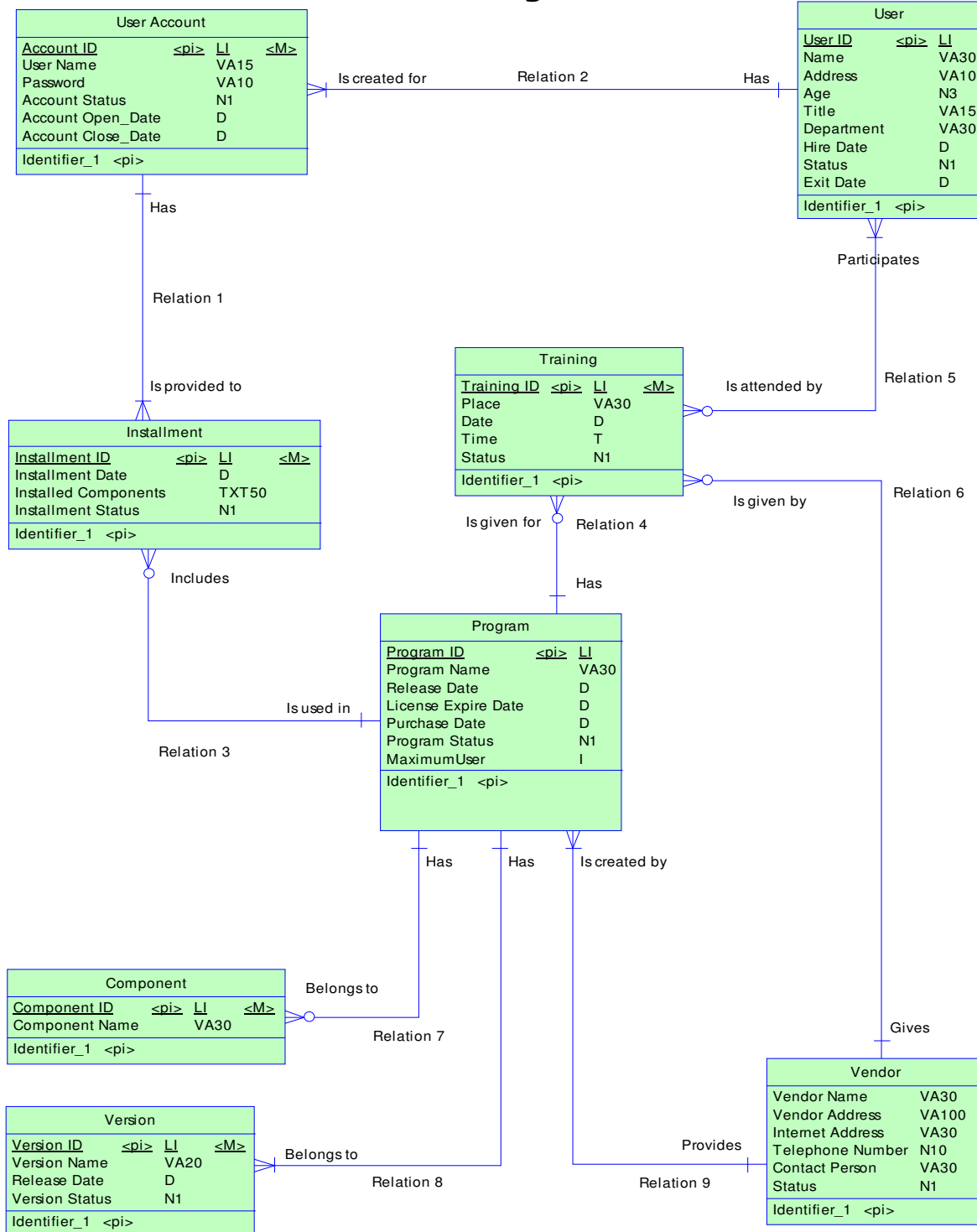
STATE TRANSITION DIAGRAM OF A USER ACCOUNT



STATE TRANSITION DIAGRAM OF A SOFTWARE



ER Diagram



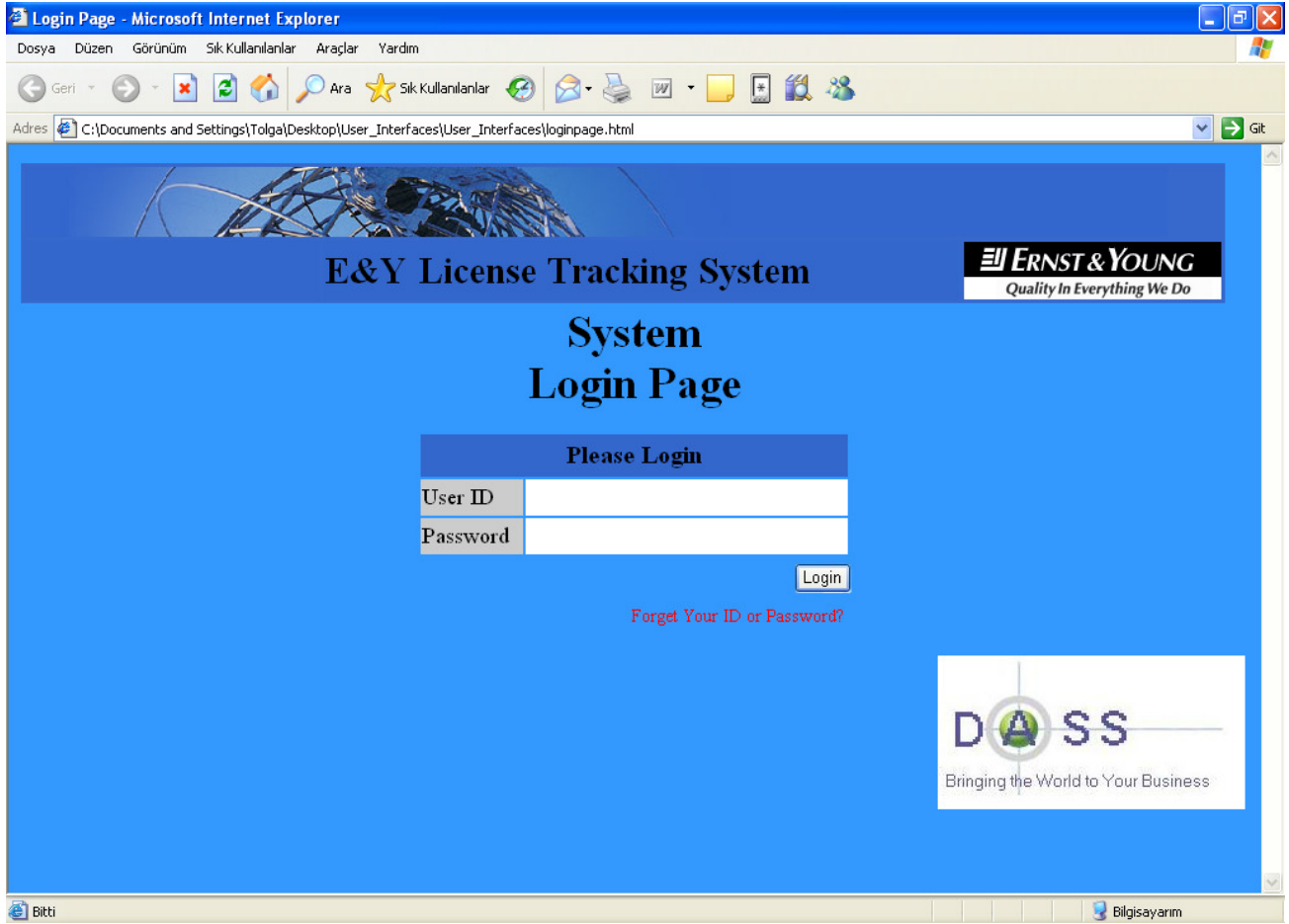
About ER Diagram

In the system we analyze , there are some databases. We keep user accounts in a database to follow accounts and their properties. User database has properties of current and old users. There is a program database which we store programs we already have .There is two types of programs ; demo programs and licensed programs. Some properties of these are the same. On the other hand Some properties are different , such as purchase date of a licensed program. Programs are installed to user accounts and we store that installments in installment database to see which program is installed to which account. There is a license type database and general properties of this database are license type id , license type name , maximum user and so on. There is a version database to store program versions , a component database to store program components and a vendor database to store program vendors. Beside theses databases there is a training database because we store the place , date , time and status of a training to analyze past training expediency. Training database is related to program , user and vendor databases.

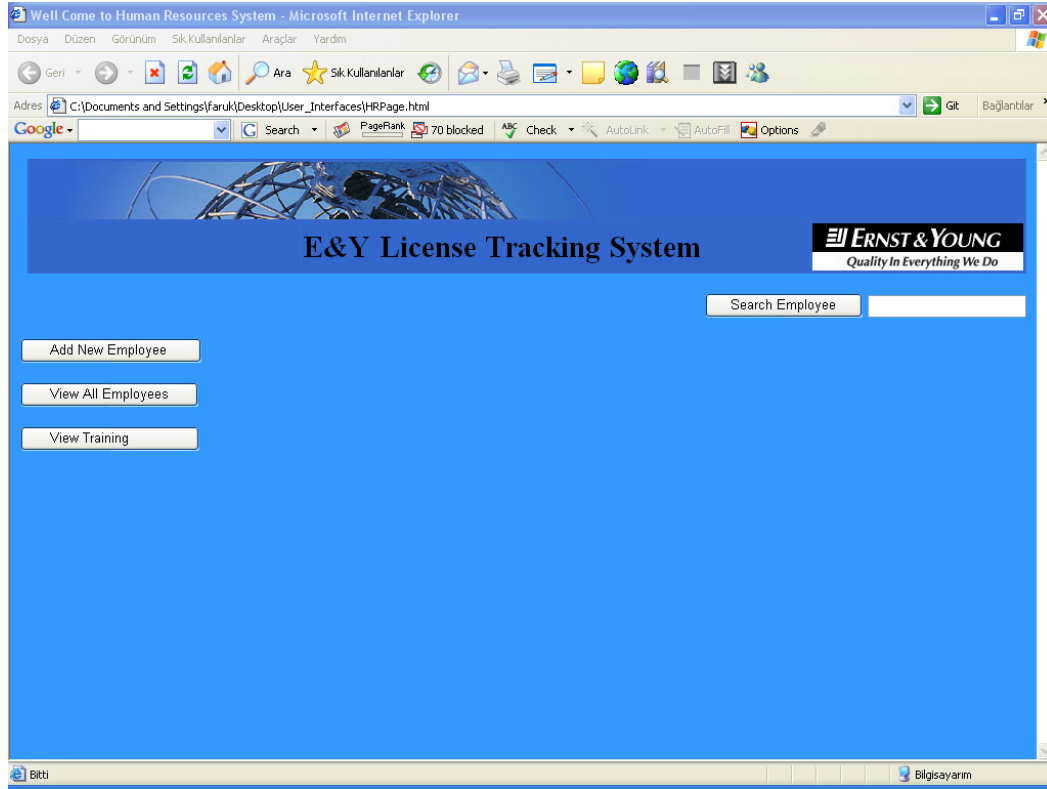
In an installment period you can install just one program, but a program can be installed many times or may not be installed. An installment is belonging to exactly one user accounts and one account has one or many installments. A user account is used for just one user, but a user may have one or many user accounts. In training, just one program is included. On the other hand, program training may be given zero times or many times. Training may be given to one or many users, but a user may have much training or none. A vendor may give zero or many trainings, but training must be given by one vendor. A vendor may release one or many programs and a program must be released by one vendor. A program has just one license type. However, a license may include many programs. This is called a license pack. A program may have zero or many components to install, but a component belongs to just one program. A program may have one or many versions, but a version belongs to one program.

User Interfaces

Login Page



Human Resources Page



Add New Employee Menu

Well Come to System - Microsoft Internet Explorer

Dosya Düzen Görünüm Sık Kullanılanlar Araçlar Yardım

Adres C:\Documents and Settings\Tolga\Desktop\User_Interfaces\User_Interfaces\AddEmployee.html

E&Y License Tracking System **ERNST & YOUNG**
Quality In Everything We Do

Search Employee

View All Employees

View Trainings

Back

SSN	3652147823
Name	Ahmet Sönmez
Adress	Karadut Cad. No:7 Ulus Apt.
Age	28
Title	Specialist
Dept	Human Resources
Hire Date	11.10.2005
Tel	05552356314

Send Message to IT Department ☐

Add Employee

Bitti Bilgisayırım

View Employee Menu

Well Come to System - Microsoft Internet Explorer

Dosya Düzen Görünüm Sık Kullanılanlar Araçlar Yardım

Adres C:\Documents and Settings\Tolga\Desktop\User_Interfaces\User_Interfaces\ViewEmployee.html

E&Y License Tracking System

ERNST & YOUNG
Quality In Everything We Do

Search Employee

Add Employee	SSN	Name	Adress	Age	Title	Dept	Hire Date	Status	Tel	
	3403200102	Ahmet Sönmez	Kadınhanı Cad. No:15	27	Consultant	HR	12.04.2004	Active	05554215236	Training Info
	3424245204	Hasan Uludağ	Ankara Yolu No:20/2	32	Specialist	IT	02.01.1999	Active	05056354123	Training Info
Update Status	3252634582	Murat Akın	Kurtuluş Cad. No:21	37	Advisor	Audit	03.04.1996	Exit	05056321472	Training Info
Change Details	3562145236	Hande Yılmaz	Aydınlık Cad. No:12/4	29	Manager	Taxation	04.12.1998	Active	05322635415	Training Info
Back	3252364823	Demet Ular	Halaskar Gazi Cad. No:12	24	Supervisor	Audit	01.10.2000	Inactive	05442365142	Training Info

➡

Bitti Bilgisayarım

View Training Menu

Well Come to System - Microsoft Internet Explorer

Dosya Düzen Görünüm Sık Kullanılanlar Araçlar Yardım

Adres C:\Documents and Settings\faruk\Desktop\User_Interfaces\ViewTraining.html

Google Search PageRank 70 blocked Check AutoLink AutoFill Options

E&Y License Tracking System **ERNST & YOUNG**
Quality In Everything We Do

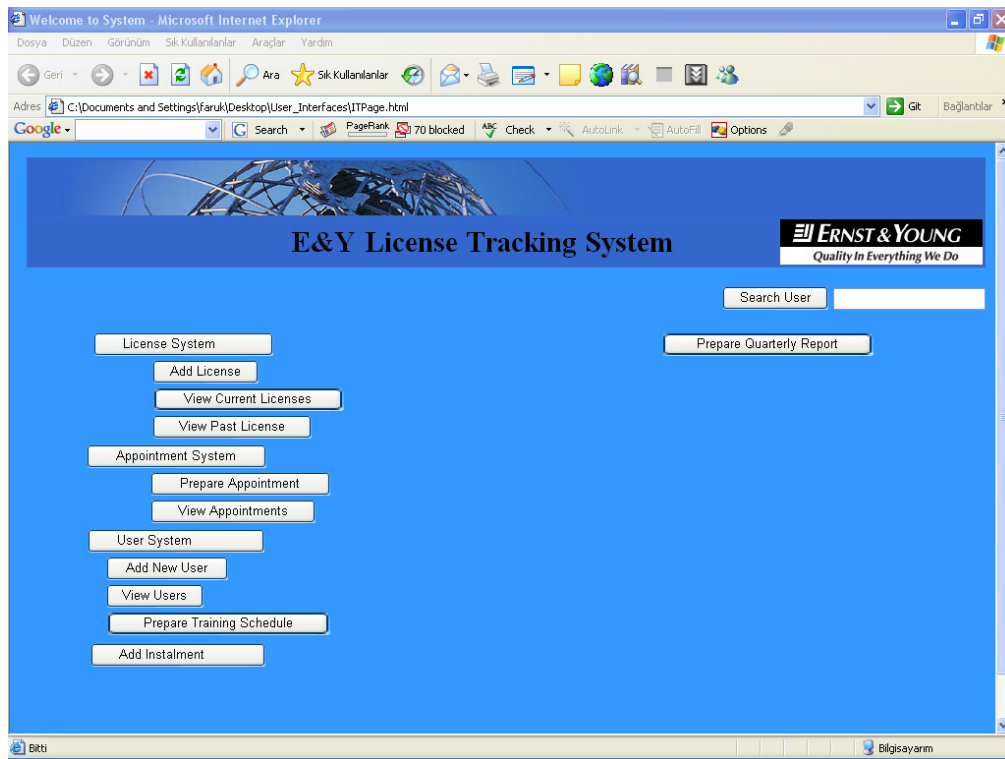
Search Employee

	Training ID	Program Name	Vendor	Place	Training Days	Start Date	Time	Status	Action
Add Employee	1	MS Excel	Microsoft	Beşiktaş	M-T-F	01.03.2006	17:00	No Approved	Approve View Participants
	2	Lotus Notes	IBM	Taksim	W-F	10.12.2005	17:00	Continuing	Cancel View Participants
Update Status	3	Exact Financials	Mocola	Taksim	Th-F	07.10.2005	19:00	finished	View Participants
Change Details	4	Accpac	Sage	Beşiktaş	M-F	02.08.2005	21:00	finished	View Participants
Back	5	MS Visio	Microsoft	Taksim	W-F	10.02.2006	19:30	will begin	Cancel View Participants



Bitti Bilgisayarım

IT Page



Add Installment Menu

Welcome to System - Microsoft Internet Explorer

Dosya Düzen Görünüm Sık Kullanılanlar Araçlar Yardım

Adres C:\Documents and Settings\Tolga\Desktop\User_Interfaces\User_Interfaces\Addinstalment.html

E&Y License Tracking System **ERNST & YOUNG**
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Search User

License System

Appointment System

Program Name	User Name	Date
Microsoft Office	Ahmet.Sonmez	11.12.2005

User System

Bitti Bilgisayarım

Prepare Training Schedule (Step1)

Prepare Training - Microsoft Internet Explorer

Dosya Düzen Görünüm Sık Kullanılanlar Araçlar Yardım

Adres C:\Documents and Settings\faruk\Desktop\User_Interfaces\PrepareTraining.html

Google Search PageRank 70 blocked ABC Check AutoLink AutoFill Options

E&Y License Tracking System **ERNST & YOUNG**
Quality In Everything We Do

Search Employee

Please Select Users to Send Message for Training (Step 1 of 2)

Main Menu

	Name	Title	Dept	Status	Tel
<input checked="" type="checkbox"/>	Ahmet Sönmez	Consultant	HR	Active	05554215236
<input type="checkbox"/>	Hasan Uludağ	Specialist	IT	Active	05056354123
<input checked="" type="checkbox"/>	Murat Akın	Advisor	Audit	Exit	05056321472
<input checked="" type="checkbox"/>	Hande Yılmaz	Manager	Taxation	Active	05322635415
<input type="checkbox"/>	Demet Ular	Supervisor	Audit	Inactive	05442365142

Back

Next Step

Biti Bilgisayırım

Prepare Training Schedule (Step 2)

Well Come to System - Microsoft Internet Explorer

Dosya Düzen Görünüm Sık Kullanılanlar Araçlar Yardım

Adres C:\Documents and Settings\faruk\Desktop\User_Interfaces\PrepareTraining_2.html

Google Search PageRank 70 blocked Check AutoLink AutoFill Options

E&Y License Tracking System **ERNST & YOUNG**
Quality In Everything We Do

Search Employee

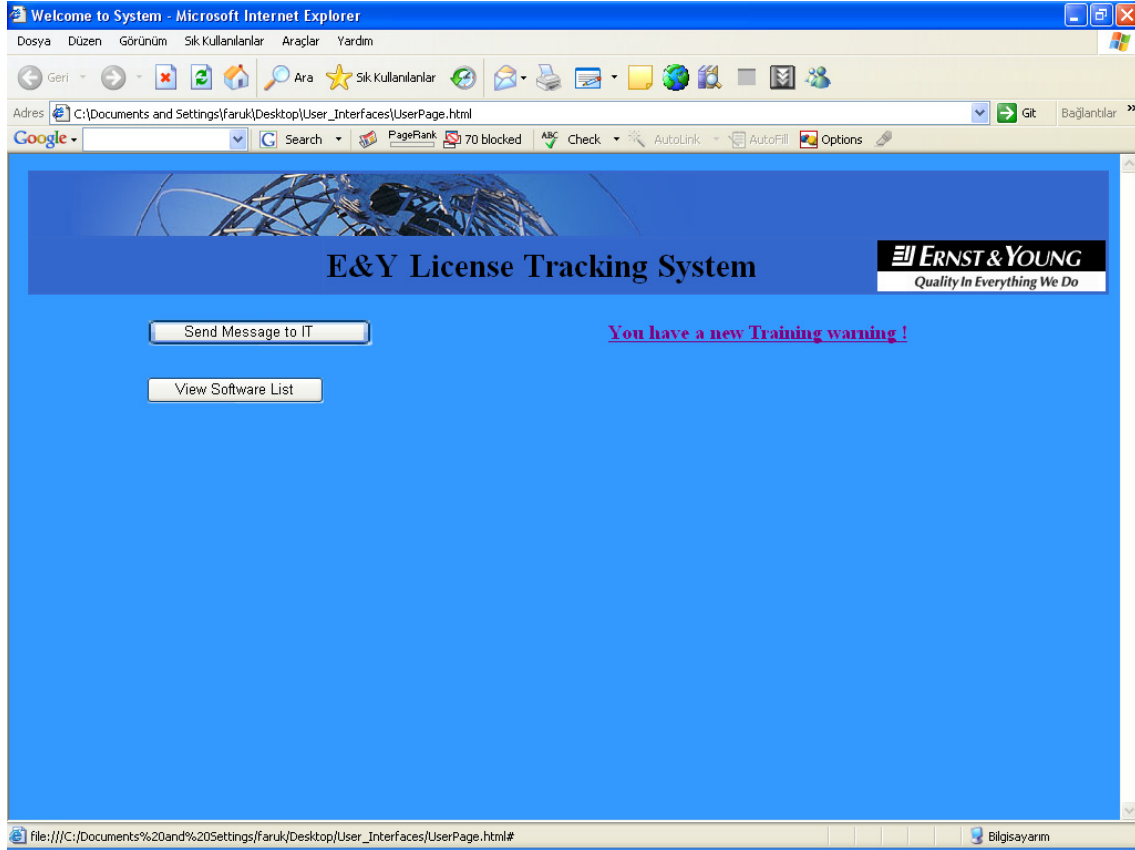
Define The Time of Training Above					Write Message Above to Send Selected Employees
Section	Activate	Days	Hours	Place	
1	<input checked="" type="checkbox"/>	M-F	11:30-12:30	Meeting Room	
2	<input checked="" type="checkbox"/>	Th-F	13:00-14:00, 16:00-17:00	Mecidiyeköy	
3	<input type="checkbox"/>				
4	<input type="checkbox"/>				
5	<input type="checkbox"/>				

More Back Compite Training Schedule

We are preparing a training schedule for New Users of Sage Accpac ERP Program in the company. There are different class sections available for you. Please login to the User System and select the Class Times. You could attend after reading this mail.

Bilgisayarım

User Menu



Select Training Menu

Well Come to System - Microsoft Internet Explorer

Dosya Düzen Görünüm Sık Kullanılanlar Araçlar Yardım

Adres C:\Documents and Settings\faruk\Desktop\User_Interfaces\User_Training.html

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E&Y License Tracking System **ERNST & YOUNG**
Quality In Everything We Do

Date: 10.12.2005
Main Menu
Back

Message From IT Manager

Dear Ahmet Özen;
We are preparing a training schedule for New Users of Sage Accpac ERP Program in the company.
There are different class sections available for you.
Please login to the User System and select the Class Times
You could attend after reading this mail.

Please Rank Sections Available for You

Section	Your Rank	Days	Hours	Place
1	2	M-F	11:30-12:30, 11:30-12:30	Meeting Room
2	1	Th-F	13:00-14:00, 16:00-17:00	Mecidiyeköy
3	4	T-W	14:30-15:30, 14:30-15:30	Taksim
4	3	W-Th	11:30-12:30, 17:00-18:00	Seminar Room

Complete Training Registration

Back

Bilgisayarım

Quarterly License Report

The screenshot shows a Microsoft Word document titled "Information About Program Usage (Preview)". The document contains three tables of program usage data. The first table is for "AWS", the second for "Ibm Domino Designer", and the third for "Ibm Lotus Notes". Each table lists departments, titles, and installment counts, with a total installment count at the end of each section.

Program Name	Department Name	Title	Installment
<i>AWS</i>	<i>Total Instalment:</i>		62
	Audit	Audit Specialist	21
	Finance	Finance Employee	20
	IT	AWS Support	2
	IT	IT Chief	2
	Tax	Tax Specialist	17
<i>Ibm Domino Designer</i>	<i>Total Instalment:</i>		10
	IT	AWS Support	2
	IT	Helpdesk	1
	IT	IT Chief	2
	TSRS	Technical Support	5
<i>Ibm Lotus Notes</i>	<i>Total Instalment:</i>		21
	HR	Co-Manager	2
	HR	Manager	1
	IT	Helpdesk	6
	IT	IT Chief	2
	IT	Manager	1
	TSRS	Manager	1
	TSRS	Technical Support	8

COST AND TIME ESTIMATES

Development Costs:	\$14.500
Software Purchase	\$8.000
Training of Staff	\$2.000
Cost of Staff Time used in Training	\$500
System Analysis and Design	\$4.000

Variable Costs per Year:	\$10.500
Maintenance of Network Hardware Per Year	\$6.000
Maintenance of Software Per Year	\$4.000
Estimated Training Costs Per Year	\$500

Estimated Useful Life of the System 4 Years

Total Cost of Ownership \$56.400

All the System Development and Training Processes could be completed in 2 months.

ROI for the 4 years period

Yearly Cost Avoidance: \$11.000

Yearly Information Availability and fast System Benefit: \$9.000

Total Yearly Benefit:	\$20.000
Total Benefit:	\$80.000
Total Cost:	\$56.400

EXTERNAL ENTITY

Name : ERNST & YOUNG INTERNATIONAL LICENSE CENTER Alias : ERNST & YOUNG ILC Description : ERNST & YOUNG ILC is the main organizer of the license process in the world. It buys necessary licensed softwares, sends licensed softwares to the company and takes license information about the company.	
Input Data Flows: Maximum User Warning Software Comparison Report Quarterly Report	Output Data Flows: Licensed Software List

EXTERNAL ENTITY

Name : VENDOR Alias : VENDOR Description : Vendor is the company that produces new softwares and sells them.	
Input Data Flows: Ernst & Young TURKEY Software Comparison Feedback Training Information Request	Output Data Flows: Training Conditions New Software Information

EXTERNAL ENTITY

Name : HUMAN RESOURCE Alias : HUMAN RESOURCE Description : Human Resource holds all personnel data. It records new employed personnel, status of the personnel (working – on leave - retired) and assigns user accounts for all personnel.	
Input Data Flows: Warning Message Training Schedule Report Negative Training Requirement Response	Output Data Flows: Status Information New Employed Personnel Information

EXTERNAL ENTITY

Name : INFORMATION TECHNOLOGY Alias : IT Description : Information Technology is a department in a company that involves in system and user problems install – uninstall, technical topics, network and database.	
Input Data Flows: Built System Request	Output Data Flows: Approved User Details Quarterly Report

EXTERNAL ENTITY

Name : USER Alias : USER Description : User is a person who use and make use of the system or softwares. He – she also evaluates and be trained for new or updated softwares.	
Input Data Flows: Training Schedule Software Evaluation Request Rejection Message Appointment Request	Output Data Flows: System Collapse Message Acknowledgement Software Evaluation Schedule Offering Approval Message

FUNCTION LIST

0. LICENSE TRACKING SYSTEM

1. MANAGE LICENSE

1.1 UPDATE LICENSE

- 1.1.1 CHECK LICENSE STATUS**
- 1.1.2 INACTIVATE LICENSED SOFTWARE**
- 1.1.3 CHECK OLD VERSION STATUS**
- 1.1.4 UPDATE LICENSE**
- 1.1.5 ADD NEW RECORD**

1.2 UNINSTALL SOFTWARE

1.3 FIND CURRENT USER

2. PREPARE TRAINING SCHEDULE

2.1 DECIDE THE NEED OF EDUCATION

- 2.1.1 INSTALL THE SOFTWARE**
- 2.1.2 ANALYZE THE SOFTWARE**
- 2.1.3 COMPARE WITH SIMILAR LICENSED SOFTWARES**
- 2.1.4 MEET HUMAN RESOURCES**

2.2 SCHEDULE TRAINING

2.3 PREPARE TRAINING SCHEDULE REPORT

3. EXECUTE SERVICE REQUEST

- 3.1 FIND SIMILAR USER PROFILE**
- 3.2 CHECK LICENSE STATUS**
- 3.3 FIND CURRENTLY INSTALLED SOFTWARE**
- 3.4 INSTALL SOFTWARE**
- 3.5 APPOINTMENT**

4. MANAGE EMPLOYEE

- 4.1 VERIFY MESSAGE**
- 4.2 UPDATE USER STATUS**
- 4.3 ADD NEW EMPLOYEE**

5. PREPARE REPORT

PROCESS

Number	: 1
Name	: MANAGE LICENSE
Description	: Obtain Licensed Software List from E&Y ILC, send information of them to Licensed Software List datastore, decide to uninstall or update the software
Input Data Flow:	Licensed Software List Confirmation User Information Software Name
Output Data Flow:	License Information User Information Uninstallment Information Candidate User New Software List

PROCESS

Number	: 1.1
Name	: UPDATE LICENSE
Description	: Send knowledge about licensed softwares, check the softwares whether they are new – old or ongoing licensed software, update old version of existing software, inactivate the old software and send them to uninstall process, and add new record for new software.
Input Data Flow:	Licensed Software List
Output Data Flow:	Inactivated Software List Inactivation License Information Updated License Information New Software List

PROCESS

Number	: 1.1.1
Name	: CHECK LICENSE STATUS
Description	: Get Licensed Software List from E&Y ILC and check the status and send list of the software to available process
Input Data Flow:	Licensed Software List
Output Data Flow:	Inactivated License List New Software List New Version of the Software Ongoing License Information

PROCESS

Number	: 1.1.2
Name	: INACTIVATE LICENSED SOFTWARE
Description	: Send inactivated softwares list to UNINSTALL SOFTWARE and take out inactivated software from LICENSED SOFTWARE LIST
Input Data Flow: Acknowledge of Unavailable Old Version Software Inactivated License List	
Output Data Flow: Inactivation Inactivated Softwares List	

PROCESS

Number	: 1.1.3
Name	: CHECK OLD VERSION STATUS
Description	: When new version software message comes it will check whether there is currently old version of the software
Input Data Flow: New Version Software	
Output Data Flow: New Version Software Information Acknowledgement of Unavailable Old Version Software Expire Date of New Version Software Acknowledgement of Available Old Version Software	

PROCESS

Number	: 1.1.4
Name	: UPDATE LICENSE
Description	: Update available old version softwares and store them in LICENSED SOFTWARE LIST
Input Data Flow: Expire Date of New Version Ongoing License Information Acknowledgement of Available Old Version Software	
Output Data Flow: Updated License Information	

PROCESS

Number	: 1.1.5
Name	: ADD NEW RECORD
Description	: Store new licensed software into LICENSED SOFTWARE LIST and renew version information of the records
Input Data Flow: New Version Software Information New Software List	
Output Data Flow: License Information New Software List	

PROCESS

Number	: 1.2
Name	: UNINSTALL SOFTWARE
Description	: It uninstalls inactivated softwares in users. Take the list from Update License and send inactivated software name to Find Current User process.
Input Data Flow: Inactivated Software List User Information	
Output Data Flow: Software Name	

PROCESS

Number	: 1.3
Name	: FIND CURRENT USER
Description	: Compare user name and installed software in his computer for training and uninstallation, send candidate user for training and user information for uninstallation.
Input Data Flow: Software Name for Training User Name Department Software Name for Uninstallation	
Output Data Flow: Candidate User User Information	

PROCESS

Number	: 2
Name	: PREPARE TRAINING SCHEDULE
Description	: This process is for users. It gets new licensed software list from UPDATE LICENSE, decides that whether training is required or not for specific software after interaction with vendor that provides the software, prepare a training schedule which fits him – her
Input Data Flow:	Candidate User Schedule Offering Schedule Approval Notice New Software List Training Conditions
Output Data Flow:	Software Name Training Information Request Training Schedule Report Negative Training Requirement Response Education Schedule

PROCESS

Number	: 2.1
Name	: DECIDE THE NEED OF EDUCATION
Description	: Install the software in IT department, analyze features and compare with similar ones, and decide whether the training is required for the software or not
Input Data Flow:	New Software List
Output Data Flow:	Negative Training Requirement Response Software Name

PROCESS

Number	: 2.1.1
Name	: INSTALL THE SOFTWARE
Description	: To understand whether education is needed or not, install the software in IT department
Input Data Flow:	New Software List
Output Data Flow:	Installed Software

PROCESS

Number	: 2.1.2
Name	: ANALYZE THE SOFTWARE
Description	: Analyze software features and user interface. Check features are available for computers in the company and interface is user-friendly
Input Data Flow: Installed Software	
Output Data Flow: Analyzed Software	

PROCESS

Number	: 2.1.3
Name	: COMPARE WITH SIMILAR LICENSED SOFTWARES
Description	: According to analysis results, compare the software with other in same category
Input Data Flow: Analyzed Software	
Output Data Flow: Comparison Report	

PROCESS

Number	: 2.1.4
Name	: MEET HUMAN RESOURCES
Description	: Meet HUMAN RESOURCE to tell the decision
Input Data Flow: Comparison Report	
Output Data Flow: Software Name Negative Training Requirement Response	

PROCESS

Number	: 2.2
Name	: SCHEDULE TRAINING
Description	: Prepare available schedule for candidate user for education and obtain training conditions.
Input Data Flow: Schedule Approval Schedule Offering Training Conditions Candidate User Information	
Output Data Flow: Completed Schedule Training Information Request Training Schedule	

PROCESS

Number	: 2.3
Name	: PREPARE TRAINING SCHEDULE REPORT
Description	: Report training schedule, the user who takes the training
Input Data Flow: User Profile Training Details	
Output Data Flow: Training Schedule Report	
Process Description:	

PROCESS

Number	: 3
Name	: EXECUTE SERVICE REQUEST
Description	: Get new employed personnel information and decide which softwares are available to install, check license's maximum user is exceeded or not, if it is exceeded send a Maximum User Warning message to E&Y ILC, control which softwares have already installed in personnel's computer, according to these information install the software
Input Data Flow:	
New Employed Personnel Information	
Approved User Details	
Acknowledgement	
Available Software	
New Information	
Installed Software	
Output Data Flow:	
Software Names	
User Details	
Confirmation	
Maximum User Warning	
Appointment Request	

PROCESS

Number	: 3.1
Name	: FIND SIMILAR USER PROFILE
Description	: Get new employed personnel information, according to it finds similar user profile, get which softwares were installed to user in this profile and send installed softwares to check their license status.
Input Data Flow:	
New Employed Personnel Information	
Installed Softwares	
Output Data Flow:	
User Profile	
User Details	
Installed Softwares	

PROCESS

Number	:3.2
Name	: CHECK LICENSE STATUS
Description	: Check how many users install software in his computer and if maximum installation number of the software is exceeded it will send a maximum user warning to Ernst & Young ILC.
Input Data Flow: Installed Softwares Available Softwares	
Output Data Flow: Maximum User Warning Software List	

PROCESS

Number	: 3.3
Name	: FIND CURRENTLY INSTALLED SOFTWARE
Description	: Find and send installed softwares in the company and to whom they were installed
Input Data Flow: Installed Softwares Approved User Details	
Output Data Flow: Software List Current User Warning	

PROCESS

Number	: 3.4
Name	: INSTALL SOFTWARE
Description	: According to user details and current installed softwares in his computer, the process installs required softwares.
Input Data Flow: Current User Warning Software List User Details Installed Software List Confirmation	
Output Data Flow: User Details Software Name User Information	

PROCESS

Number	: 3.5
Name	: APPOINTMENT
Description	: Prepare an appointment date for installing the software to the user.
Input Data Flow: Acknowledgement User Information	
Output Data Flow: Appointment Request Confirmation	

PROCESS

Number	: 4
Name	: MANAGE EMPLOYEE
Description	: Get New Employed Personnel Information , add these information to USER datastore, change user status if he/ she is retired or on leave and control System Collapse Messages to be sure they are coming from user
Input Data Flow: Status Information New Employed Personnel Information User Status System Collapse Message	
Output Data Flow: Warning Message New Employed Personnel Information User Details Change Status Rejection Message Build System Request	

PROCESS

Number	: 4.1
Name	: VERIFY MESSAGE
Description	: Control user status to be sure about System Collapse Message came from user. If status is retired or on leave it will prepare rejection message.
Input Data Flow: System Collapse Message User Status	
Output Data Flow: Warning Message Rejection Message Built System Request	

PROCESS

Number	: 4.2
Name	: UPDATE USER STATUS
Description	: Change user status when he – she is retired, go on holiday.
Input Data Flow: Status Information	
Output Data Flow: Change Status	

PROCESS

Number	: 4.3
Name	: ADD NEW EMPLOYEE
Description	: Add new employee to USER data store with information came from Human Resources
Input Data Flow: New Employed Personnel Information	
Output Data Flow: New Employed Personnel Information User Details	

PROCESS

Number	: 5
Name	: PREPARE REPORT
Description	: Prepare quarterly report about software evaluation and details of licensed softwares.
Input Data Flow: Quarterly Report Details of Licensed Soft wares Software Evaluation	
Output Data Flow: Software Evaluation Request Quarterly Report	

DATA FLOW

Name	: LICENSED SOFTWARE LIST
Description	: Transmit list of licensed softwares in E&Y ILC to Update License process
From External Entity: E&Y ILC	
To Process: UPDATE LICENSE	

DATA FLOW

Name	: LICENSE INFORMATION
Description	: Transmit license information (license type, purchase-expire date, cost of software, software name, version, vendor)
From Process: UPDATE LICENSE	
To Data Store: LICENSE SOFTWARE LIST	

DATA FLOW

Name	: SOFTWARE NAME
Description	: Transmit software name that the personnel has to be trained about
From Process:	DECIDE THE NEED OF EDUCATION
To Process:	FIND CURRENT USER

DATA FLOW

Name	: NEW SOFTWARE LIST
Description	: Convey new softwares' list for decision whether there is need for training or not.
From Process:	UPDATE LICENSE
To Process:	DECIDE THE NEED OF EDUCATION

DATA FLOW

Name	: CANDIDATE USER
Description	: Send information of candidate user for the software training
From Process:	FIND CURRENT USER
To Process:	SCHEDULE TRAINING

DATA FLOW

Name	: UNINSTALLMENT INFORMATION
Description	: Convey software information which will be uninstalled to Installment data store
From Process :	MANAGE LICENSE
To Data Store:	INSTALLMENT

DATA FLOW

Name	: USER INFORMATION
Description	: Transmit user information whose software will be uninstalled
From Data Store:	INSTALLMENT
To Process:	FIND CURRENT USER

DATA FLOW

Name	: AVAILABLE SOFTWARE
Description	: Transmit softwares, available to install, to Check License Status for being sure about maximum license user limit
From Data Store:	LICENSE SOFTWARE LIST
To Process:	CHECK LICENSE STATUS

DATA FLOW

Name	: DETAILS OF LICENSED SOFTWARE
Description	: Convey information about license d softwares for quarterly report send to E&Y ILC
From Data Store:	INSTALLMENT
To Process:	PREPARE REPORT

DATA FLOW

Name	: QUARTERLY REPORT
Description	: Transmit report with detailed license information that consists of all software names, license expire date
From Process:	Prepare Report
To External Entity:	E&Y ILC

DATA FLOW

Name	: MAXIMUM USER WARNING
Description	: Send a warning message for exceed number of licensed software that installed to computers
From Process:	CHECK LICENSE STATUS
To External Entity:	E&Y ILC

DATA FLOW

Name	: SOFTWARE EVALUATION REQUEST
Description	: Transmit a request to the user to evaluate the concerned software
From Process:	PREPARE REPORT
To External Entity:	USER

DATA FLOW

Name	: SOFTWARE EVALUATION
Description	: Transmit evaluation result back to prepare report and these information will be sent to E&Y ILC
From Data Store:	USER
To Process:	PREPARE REPORT

DATA FLOW

Name	: QUARTERLY REPORT REQUEST
Description	: Convey report request to PREPARE REPORT process and information in it will be added to QUARTERLY REPORT that will go to E&Y ILC
From External Entity:	IT
To Process:	PREPARE REPORT

DATA FLOW

Name	: SYSTEM COLLAPSE MESSAGE
Description	: Send a message, consists of system collapse, errors information, to MANAGE EMPLOYEE process
From External:	USER
To Process:	VERIFY MESSAGE

DATA FLOW

Name	: REJECTION MESSAGE
Description	: Transmit a message that consists of rejection of system request by checking user's status and consider his / her status is not active now.
From Process:	VERIFY MESSAGE
To External Entity:	USER

DATA FLOW

Name	: APPROVED USER DETAILS
Description	: Transmit user details whose system request is approved, send to FIND CURRENTLY INSTALLED SOFTWARE
From External Entity:	IT
To Process:	FIND CURRENTLY INSTALLED SOFTWARE

DATA FLOW

Name	: BUILT SYSTEM REQUEST
Description	: Convey a request to IT Department for building the system wanted by the user
From Process:	VERIFY MESSAGE
To External Entity:	IT

DATA FLOW

Name	: USER STATUS
Description	: Transmit user status whether he/she is on work/on leave or retired for being sure requests were sent by the user in real
From Data Store:	USER
To External Entity:	VERIFY MESSAGE

DATA FLOW

Name	: CHANGE STATUS
Description	: Transmit changed user status to USER datastore for recording it
From Process:	UPDATE USER STATUS
To Data Store:	USER

DATA FLOW

Name	: USER DETAILS
Description	: Convey new personnel information to USER datastore for recording them into
From Process:	ADD NEW EMPLOYEE
To Data Store:	USER

DATA FLOW

Name	: NEW EMPLOYED PERSONNEL INFORMATION
Description	: Transmit New personnel information to find similar user profile(his/her job in the company)
From Process:	ADD NEW EMPLOYEE
To Process:	FIND SIMILAR USER PROFILE

DATA FLOW

Name	: STATUS INFORMATION
Description	: Convey personnel status information to update the information
From External Entity:	HUMAN RESOURCES
To Process:	UPDATE USER STATUS

DATA FLOW

Name	: WARNING MESSAGE
Description	: Transmit a message to HUMAN RESOURCES Department for checking user status who sent System Collapse Message
From Process:	VERIFY MESSAGE
To External Entity:	HUMAN RESOURCES

DATA FLOW

Name	: NEW EMPLOYED PERSONNEL INFORMATION
Description	: Transmit information of new employed personnel to add him/her to datastore
From External Entity:	HUMAN RESOURCES
To Process:	ADD NEW EMPLOYEE

DATA FLOW

Name	: TRAINING SCHEDULE REPORT
Description	: Convey approved training schedule to HUMAN RESOURCES
From Process:	PREPARE TRAINING SCHEDULE
To External Entity:	HUMAN RESOURCES

DATA FLOW

Name	: TRAINING CONDITIONS
Description	: Transmit which conditions are must for the training to the system
From External Entity:	VENDOR
To Process:	PREPARE TRAINING SCHEDULE

DATA FLOW

Name	: TRAINING INFORMATION REQUEST
Description	: Transmit request for taking information about the training
From Process:	PREPARE TRAINING SCHEDULE
To External Entity:	VENDOR

DATA FLOW

Name	: INSTALLED SOFTWARES
Description	: Convey installed softwares in personnel computers to execute service
From Data Store:	INSTALLMENT
To Process:	EXECUTE SERVICE REQUEST

DATA FLOW

Name	: SOFTWARE NAMES
Description	: Transmit software names recorded in system data store
From Process:	EXECUTE SERVICE REQUEST
To Data Store:	INSTALLMENT

DATA FLOW

Name	: USER DETAILS
Description	: Convey personnel information for checking which softwares were installed in his/her computer
From Process:	EXECUTE SERVICE REQUEST
To Data Store:	INSTALLMENT

DATA FLOW

Name	: ACKNOWLEDGEMENT
Description	: Transmit acknowledgement sent by user and consists of user and software information
From External Entity:	USER
To Process:	EXECUTE SERVICE REQUEST

DATA FLOW

Name	: APPOINTMENT REQUEST
Description	: Transmit appointment request to install, uninstall or provide other services to user
From Process:	EXECUTE SERVICE REQUEST
To External Entity:	USER

DATA FLOW

Name	: EDUCATION SCHEDULE
Description	: Convey approved education schedule to user
From Process:	PREPARE TRAINING
To External Entity:	USER

DATA FLOW

Name	: SCHEDULE OFFERING
Description	: Convey an offer for training that is appropriate for him/her
From External Entity:	USER
To Process:	PREPARE TRAINING SCHEDULE

DATA FLOW

Name	: SCHEDULE APPROVAL NOTICE
Description	: Transmit a message to tell he/she approve the schedule
From External Entity:	USER
To Process:	PREPARE TRAINING SCHEDULE

DATA FLOW

Name	: INACTIVATION
Description	: According to software list, the process choose softwares that are expired and record them to uninstall
From Process:	UPDATE LICENSE
To Data Store:	LICENSED SOFTWARE LIST

DATA FLOW

Name	: LICENSE INFORMATION
Description	: Send license information of the softwares that are not expired and record them as continue to use
From Process:	UPDATE LICENSE
To Data Store:	LICENSED SOFTWARE LIST

DATA FLOW

Name	: UPDATED LICENSE INFORMATION
Description	: Convey license information of softwares, their license information are updated also record as continue to use
From Process:	UPDATE LICENSE
To Data Store:	LICENSED SOFTWARE LIST

DATA FLOW

Name	: USER INFORMATION
Description	: Transmit the information of user whom software will be uninstalled
From Process:	FIND CURRENT USER
To Process:	UNINSTALL SOFTWARE

DATA FLOW

Name	: SOFTWARE NAME
Description	: Transmit the name of software that will be uninstalled to control it is in the user's computer.
From Process:	UNINSTALL SOFTWARE
To Process:	FIND CURRENT USER

DATA FLOW

Name	: INACTIVATED SOFTWARE LIST
Description	: Send the list of softwares that was expired to uninstall
From Process:	UPDATE LICENSE
To Process:	UNINSTALL SOFTWARE

DATA FLOW

Name	: CONTINUING LICENSE INFORMATION
Description	: Convey the license information of software that is continuing to update it
From Process:	CHECK LICENSE STATUS
To Process:	UPDATE LICENSE

DATA FLOW

Name	: INACTIVATED LICENSE LIST
Description	: Transmit list of softwares that were inactivated
From Process:	CHECK LICENSE STATUS
To Process:	INACTIVATE LICENSED SOFTWARE

DATA FLOW

Name	: ACKNOWLEDGE OF UNAVAILABLE OLD VERSION SOFTWARE
Description	: Convey knowledge about unavailable old version software that will not be upgraded, to inactivate
From Process:	CHECK OLD VERSION STATUS
To Process:	INACTIVATE LICENSED SOFTWARE

DATA FLOW

Name	: ACKNOWLEDGE OF AVAILABLE OLD VERSION SOFTWARE
Description	: Knowledge of old version software that will be updated and be continued to use
From Process:	CHECK OLD VERSION STATUS
To Process:	UPDATE LICENSE

DATA FLOW

Name	: LICENSED SOFTWARE LIST
Description	: List of the softwares used in the company is sent and it contains license status(continued- new - inactivated) and name of the software
From External Entity:	E&Y ILC
To Process:	CHECK LICENSE STATUS

DATA FLOW

Name	: EXPIRE DATE OF NEW VERSION SOFTWARE
Description	: Convey expire date of new version software and record to the database
From Process:	CHECK OLD VERSION STATUS
To Process:	UPDATE LICENSE

DATA FLOW

Name	: NEW VERSION OF THE SOFTWARE
Description	: Send new version of the software that was expired
From Process:	CHECK LICENSE STATUS
To Process:	CHECK OLD VERSION STATUS

DATA FLOW

Name	: NEW SOFTWARE LIST
Description	: Send the list to add new software to records
From Process:	CHECK LICENSE STATUS
To Process:	ADD NEW RECORD

DATA FLOW

Name	: NEW VERSION SOFTWARE INFORMATION
Description	: Transmit updated software and add it as new record
From Process:	CHECK OLD VERSION STATUS
To Process:	ADD NEW RECORD

DATA FLOW

Name	: INSTALLED SOFTWARE
Description	: Send installed software to analyze for deciding whether training for it is required or not.
From Process:	INSTALL THE SOFTWARE
To Process:	ANALYZE THE SOFTWARE

DATA FLOW

Name	: ANALYZED SOFTWARE
Description	: Convey the analyzed software for training decision to compare it with other similar (in same category) softwares
From Process:	ANALYZE THE SOFTWARE
To Process:	COMPARE WITH SIMILAR LICENSED SOFTWARES

DATA FLOW

Name	: COMPARISON REPORT
Description	: Transmit the result of comparison with other licensed softwares in the company in a comparison report to HUMAN RESOURCES
From Process:	COMPARE WITH SIMILAR LICENSED SOFTWARES
To Process:	MEET HUMAN RESOURCES

DATA FLOW

Name	: SOFTWARE NAME
Description	: Send software name that was decided to produce training schedule for.
From Process:	MEET HUMAN RESOURCES
To Process:	FIND CURRENT USER

DATA FLOW

Name	: SOFTWARE LIST
Description	: Send software list that will be installed to the computer of the user
From Process:	CHECK LICENSE STATUS
To Process:	INSTALL SOFTWARE

DATA FLOW

Name	: USER INFORMATION
Description	: Send information of the user to make appointment for installing it to user's computer
From Process:	INSTALL SOFTWARE
To Process:	APPOINTMENT

DATA FLOW

Name	: CONFIRMATION
Description	: Send message of confirming the appointment date with IT department
From Process:	APPOINTMENT
To Process:	INSTALL SOFTWARE

DATA FLOW

Name	: SOFTWARE LIST
Description	: Transmit the list of currently installed softwares in users' computers to prevent company from double installation
From Process:	FIND CURRENTLY INSTALLED SOFTWARE
To Process:	INSTALL SOFTWARE

DATA FLOW

Name	: CURRENT USER WARNING
Description	: Send an alert message that user have this software in his / her computer
From Process:	FIND CURRENTLY INSTALLED SOFTWARE
To Process:	INSTALL SOFTWARE

DATA FLOW

Name	: INSTALLED SOFTWARES
Description	: Send installed softwares for similar user profiles
From Process:	FIND SIMILAR USER PROFILE
To Process:	CHECK LICENSE STATUS

DATA FLOW

Name	: USER DETAILS
Description	: Send details of user profile that contains which softwares will be installed
From Process:	FIND SIMILAR USER PROFILE
To Process:	INSTALL SOFTWARE

DATA FLOW

Name	: COMPLETED SCHEDULE
Description	: Send completed training schedule for required software to the user
From Process:	SCHEDULE TRAINING
To Data Store:	SCHEDULE

DATA FLOW

Name	: USER PROFILE
Description	: Send recorded user profile that was appointed for a training to prepare training schedule report
From Data Store:	SCHEDULE
To Process:	PREPARE TRAINING SCHEDULE REPORT

DATA FLOW

Name	: TRAINING DETAILS
Description	: Transmit training details that was appointed for the user to prepare schedule report
From Data Store:	SCHEDULE
To Process:	PREPARE TRAINING SCHEDULE REPORT

Model Level Object Lists

1.1 List of data items

Name	Code	Domain	Data Type	Length
Account Close_Date	Account Close_Date	<None>	D	
Account ID	Account ID	<None>	LI	
Account Open_Date	Account Open_Date	<None>	D	
Account Status	Account Status	<None>	N1	1
Address	Address	<None>	VA100	100
Age	Age	<None>	N3	3
Component ID	Component ID	<None>	LI	
Component Name	Component Name	<None>	VA30	30
Contact Person	Contact Person	<None>	VA30	30
Date	Date	<None>	D	
Department	Department	<None>	VA30	30
Exit Date	Exit Date	<None>	D	
Hire Date	Hire Date	<None>	D	
Installed Components	Installed Components	<None>	TXT50	50
Installment Date	Installment Date	<None>	D	
Installment ID	Installment ID	<None>	LI	
Installment Status	Installment Status	<None>	N1	1
Internet Address	Internet Address	<None>	VA30	30
License Expire Date	License Expire Date	<None>	D	
MaximumUser	MaximumUser	<None>	I	
Name	Name	<None>	VA30	30
Password	Password	<None>	VA10	10
Place	Place	<None>	VA30	30
Program ID	Program ID	<None>	LI	
Program Name	Program Name	<None>	VA30	30
Program Status	Program Status	<None>	N1	1
Purchase Date	Purchase Date	<None>	D	
Release Date	Release Date	<None>	D	
Status	Status	<None>	N1	1
Telephone Number	Telephone Number	<None>	N10	10
Time	Time	<None>	T	
Title	Title	<None>	VA15	15
User ID	User ID	<None>	LI	
User Name	User Name	<None>	VA15	15
Vendor Address	Vendor Address	<None>	VA100	100
Vendor Name	Vendor Name	<None>	VA30	30
Version ID	Version ID	<None>	LI	
Version Name	Version Name	<None>	VA20	20
Version Status	Version Status	<None>	N1	1

Training ID	Training ID	<None>	LI	
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1.2 List of diagrams

<i>Name</i>	<i>Code</i>
Diagram_1	Diagram_1

1.3 List of entities

Name	Code	Parent	Generate	Number
Component	Component	Conceptual Data Model 'ConceptualDataModel_1'	TRUE	
Installment	Installment	Conceptual Data Model 'ConceptualDataModel_1'	TRUE	
Program	Program	Conceptual Data Model 'ConceptualDataModel_1'	TRUE	
Training	Training	Conceptual Data Model 'ConceptualDataModel_1'	TRUE	
User	User	Conceptual Data Model 'ConceptualDataModel_1'	TRUE	
User Account	User Account	Conceptual Data Model 'ConceptualDataModel_1'	TRUE	
Vendor	Vendor	Conceptual Data Model 'ConceptualDataModel_1'	TRUE	
Version	Version	Conceptual Data Model 'ConceptualDataModel_1'	TRUE	

1.4 List of entity identifiers

Name	Code	Parent
Identifier_1	Identifier_1	Entity 'Installment'
Identifier_1	Identifier_1	Entity 'User Account'
Identifier_1	Identifier_1	Entity 'User'
Identifier_1	Identifier_1	Entity 'Vendor'
Identifier_1	Identifier_1	Entity 'Component'
Identifier_1	Identifier_1	Entity 'Version'
Identifier_1	Identifier_1	Entity 'Program'

1.5 List of relationships

Name	Code	Parent	Entity 1	Entity 2
Relation 1	Relation 1	Conceptual Data Model 'ConceptualDataModel_1'	Installment	User Account
Relation 2	Relation 2	Conceptual Data Model 'ConceptualDataModel_1'	User Account	User
Relation 3	Relation 3	Conceptual Data Model 'ConceptualDataModel_1'	Program	Installment
Relation 4	Relation 4	Conceptual Data Model 'ConceptualDataModel_1'	Program	Training
Relation 5	Relation 5	Conceptual Data Model 'ConceptualDataModel_1'	Training	User
Relation 6	Relation 6	Conceptual Data Model 'ConceptualDataModel_1'	Training	Vendor
Relation 7	Relation 7	Conceptual Data Model 'ConceptualDataModel_1'	Program	Component
Relation 8	Relation 8	Conceptual Data Model 'ConceptualDataModel_1'	Program	Version
Relation 9	Relation 9	Conceptual Data Model 'ConceptualDataModel_1'	Program	Vendor

2. Entities

2.1.1 Entity COMPONENT

2.1.1.1 Card of entity COMPONENT

Name	COMPONENT
Code	COMPONENT
Parent	Conceptual Data Model 'ConceptualDataModel_1'
Generate	TRUE

2.1.1.2 List of identifiers of the entity COMPONENT

Name	Code	Parent
Identifier_1	Identifier_1	Entity 'Component'

2.1.1.3 List of relationships of entity COMPONENT

Name	Entity 1	Entity 2	Entity 1 -> Entity 2 Role	Entity 2 -> Entity 1 Role	(1)->(2) Card.	(2)->(1) Card.
Relation 7	Program	Component	Has	Belongs to	0,n	1,1

2.1.1.4 List of entity attributes of the entity COMPONENT

Name	Code
Component ID	Component ID
Component Name	Component Name

2.1.2 Entity INSTALLMENT

2.1.2.1 Card of entity INSTALLMENT

Name	Installment
Code	Installment
Parent	Conceptual Data Model 'ConceptualDataModel_1'
Generate	TRUE

2.1.2.2 List of identifiers of the entity INSTALLMENT

Name	Code	Parent
Identifier_1	Identifier_1	Entity 'Installment'

2.1.2.3 List of relationships of entity INSTALLMENT

			Entity 1 -> Entity 2 Role	Entity 2 -> Entity 1 Role	(1)->(2) Card.	(2)->(1) Card.
Name	Entity 1	Entity 2				
Relation 3	Program	Installment	Is used in	Includes	0,n	1,1
Relation 1	Installment	User Account	Is provided to	Has	1,n	1,n

2.1.2.4 List of entity attributes of the entity INSTALLMENT

Name	Code
Installment ID	Installment ID
Installment Date	Installment Date
Installed Components	Installed Components
Installment Status	Installment Status

2.1.3 Entity PROGRAM

2.1.3.1 Card of entity PROGRAM

Name	Program
Code	Program
Parent	Conceptual Data Model 'ConceptualDataModel_1'
Generate	TRUE

2.1.3.2 List of identifiers of the entity PROGRAM

Name	Code	Parent
Identifier_1	Identifier_1	Entity 'Program'

2.1.3.3 List of relationships of entity PROGRAM

Name	Entity 1	Entity 2	Entity 1 -> Entity 2 Role	Entity 2 -> Entity 1 Role	(1)->(2) Card.	(2)->(1) Card.
Relation 3	Program	Installment	Is used in	Includes	0,n	1,1
Relation 4	Program	Training	Has	Is given for	0,n	1,1
Relation 7	Program	Component	Has	Belongs to	0,n	1,1
Relation 8	Program	Version	Has	Belongs to	1,n	1,1
Relation 9	Program	Vendor	Is created by	Provides	1,1	1,n

2.1.3.4 List of entity attributes of the entity PROGRAM

Name	Code
Program ID	Program ID
Program Name	Program Name
Release Date	Release Date
License Expire Date	License Expire Date
Purchase Date	Purchase Date
Program Status	Program Status
MaximumUser	MaximumUser

2.1.4 Entity TRAINING

2.1.4.1 Card of entity TRAINING

Name	Training
Code	Training
Parent	Conceptual Data Model 'ConceptualDataModel_1'
Generate	TRUE

2.1.4.2 List of identifiers of the entity TRAINING

Name	Code	Parent
Identifier_1	Identifier_1	Entity 'Training'

2.1.4.3 List of relationships of entity TRAINING

			Entity 1 -> Entity 2 Role	Entity 2 -> Entity 1 Role	(1)->(2) Card.	(2)->(1) Card.
Name	Entity 1	Entity 2				
Relation						
4	Program	Training	Has	Is given for	0,n	1,1
Relation						
5	Training	User	Is attended by	Participates	1,n	0,n
Relation						
6	Training	Vendor	Is given by	Gives	1,1	0,n

2.1.4.4 List of entity attributes of the entity TRAINING

Name	Code
Training ID	Training ID
Place	Place
Date	Date
Time	Time
Status	Status

2.1.4 Entity USER

2.1.4.1 Card of entity USER

Name	User
Code	User
Parent	Conceptual Data Model 'ConceptualDataModel_1'
Generate	TRUE

2.1.4.2 List of identifiers of the entity USER

Name	Code	Parent
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Identifier_1	Identifier_1	Entity 'User'
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2.1.4.3 List of relationships of entity USER

Name	Entity 1	Entity 2	Entity 1 -> Entity 2 Role	Entity 2 -> Entity 1 Role	(1)->(2) Card.	(2)->(1) Card.
Relation 2	User	Account	Is created for	Has	1,1	1,n
Relation 5	Training	User	Is attended by	Participates	1,n	0,n

2.1.4.4 List of entity attributes of the entity USER

Name	Code
User ID	User ID
Name	Name
Address	Address
Age	Age
Title	Title
Department	Department
Hire Date	Hire Date
Status	Status
Exit Date	Exit Date

2.1.7 Entity USER ACCOUNT

2.1.7.1 Card of entity USER ACCOUNT

Name	User Account
Code	User Account
Parent	Conceptual Data Model 'ConceptualDataModel_1'
Generate	TRUE

2.1.7.2 List of identifiers of the entity USER ACCOUNT

Name	Code	Parent
Identifier_1	Identifier_1	Entity 'User Account'

2.1.7.3 List of relationships of entity USER ACCOUNT

Name	Entity 1	Entity 2	Entity 1 -> Entity 2 Role	Entity 2 -> Entity 1 Role	(1)->(2) Card.	(2)->(1) Card.
Relation 1	Installment	User Account	Is provided to	Has	1,n	1,n
Relation 2	User Account	User	Is created for	Has	1,1	1,n

2.1.7.4 List of entity attributes of the entity USER ACCOUNT

Name	Code
Account ID	Account ID
User Name	User Name
Password	Password
Account Status	Account Status
Account Open_Date	Account Open_Date
Account Close_Date	Account Close_Date

2.1.8 Entity VENDOR

2.1.8.1 Card of entity VENDOR

Name	Vendor
Code	Vendor
Parent	Conceptual Data Model 'ConceptualDataModel_1'
Generate	TRUE

2.1.8.2 List of identifiers of the entity VENDOR

Name	Code	Parent
Identifier_1	Identifier_1	Entity 'Vendor'

2.1.8.3 List of relationships of entity VENDOR

Name	Entity 1	Entity 2	Entity 1 -> Entity 2 Role	Entity 2 -> Entity 1 Role	(1)->(2) Card.	(2)->(1) Card.
Relation 6	Training	Vendor	Is given by	Gives	1,1	0,n
Relation 9	Program	Vendor	Is created by	Provides	1,1	1,n

2.1.8.4 List of entity attributes of the entity VENDOR

Name	Code
Vendor Name	Vendor Name
Vendor Address	Vendor Address
Internet Address	Internet Address
Telephone Number	Telephone Number
Contact Person	Contact Person
Status	Status

2.1.9 Entity VERSION

2.1.9.1 Card of entity VERSION

Name	Version
Code	Version
Parent	Conceptual Data Model 'ConceptualDataModel_1'
Generate	TRUE

2.1.9.2 List of identifiers of the entity VERSION

Name	Code	Parent
Identifier_1	Identifier_1	Entity 'Version'

2.1.9.3 List of relationships of entity VERSION

Name Relation	Entity 1	Entity 2	Entity 1 -> Entity 2	Entity 2 -> Entity 1	(1)->(2) Card.	(2)->(1) Card.
			Role	Role		
8	Program	Version	Has	Belongs to	1,n	1,1

2.1.9.4 List of entity attributes of the entity VERSION

Name	Code
Version ID	Version ID
Version Name	Version Name
Release Date	Release Date
Version Status	Version Status