Project 2 Presentation

CS5322 Grp15
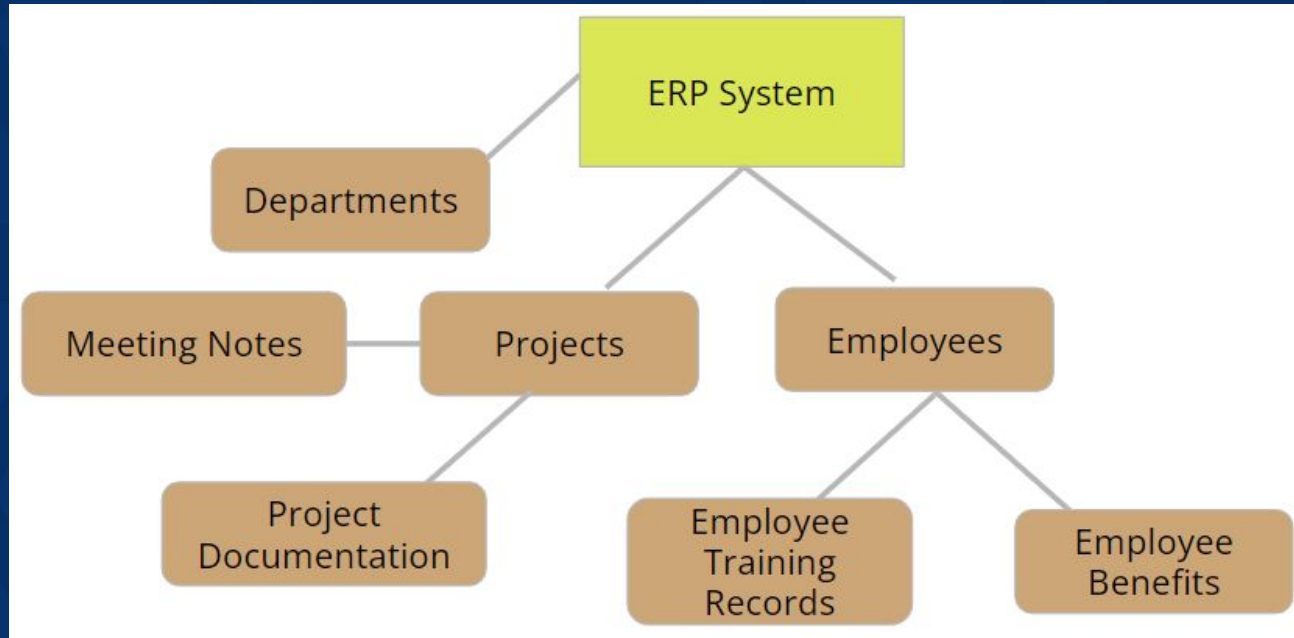
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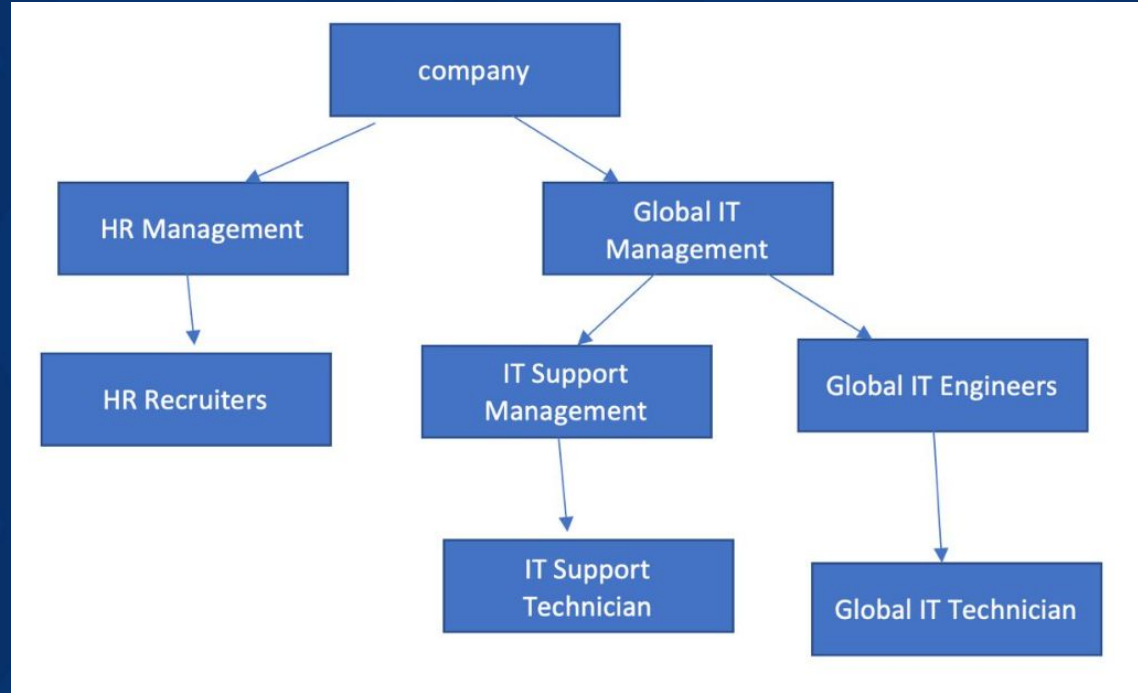# Use Case Introduction

Enterprise Resource Planning System

2 Database Security Design

Security Label + Group Hierarchy

OLS Account Matrix

Account	Max Level	Minimum Level	Default Level	Compartments	Groups
hr_1	S	R	S	MAN,TEC,SAF,REP,STR,REV,BLU	HR_MGR
hr_2	S	R	S	TEC,SAF,REP,STR,REV,BLU	HR_REC
globalit_1	S	R	S	MAN,TEC,SAF,FIN,REP,BUD,REV,BLU	IT_GLOBAL_MGR
globalit_2	C	R	C	TEC,SAF,REP,REV,BLU	IT_GLOBAL_ENG
globalit_3	C	R	R	TEC,SAF,REP,REV,BLU	IT_GLOBAL_TEC
itsupport_1	R	R	R	TEC,SAF,REP,REV,BLU	IT_SUPPORT_TEC
itsupport_2	S	R	S	MAN,TEC,SAF,REP,REV,BLU	IT_SUPPORT_MGR

Table Example

Employee ID	Training Certs	Security Level (Level)	Training Type (Compartment)	Position (Group)	Department (Group)
1	Cybersecurity	C	Technical	Employee	Global IT
2	Workplace conflict	S	Managerial	Manager	HR

3 ERP System
User Journey

Employee Management

1a	**View Personal Info**	• HR Manager & Employee see all employees' data • IT Managers see all employees' data in their department • IT Employees only see their own data
1b	**Update Personal Info**	• IT Managers cannot update employees' data not in their department • HR Manager see all employees' records
2a	**View Training Record**	• HR Employee see all employees' records except for managers • IT Managers see all employees' records in their department • IT Engineers see all Engineers' & Technicians' records in their department • IT Technicians see all Technicians' records in their department
2b	**Update Training Record**	• Only managers can update training record in their department
3	**Benefits**	• 3 Benefit Compartments of Medical, Retirement, Financial. Medical basic full access. • HR manager full access except RET only to HR. • HR Recruiter full access to FIN. • GlobalIT manager full access except RET only to IT

Employee Management Demo

Running through SQL statements on SQL Developer

Project Management

1a	**View Projects**	• Manager see all projects in their departments • Employees see projects in their departments at or below their authorized level
1b	**Insert Projects**	• Only managers can insert new project in their department
1c	**Update Projects**	• Only managers can update project info in their department
2a	**View Project Document**	• IT Manager see all projects docs in their departments • IT Engineers see projects docs at or below their authorized level, covered by their authorized compartments, under their authorized group
2b	**Insert Project Document**	• IT Engineers add new project document
2b	**Updating Project Document**	• IT Engineers update project document

Project Management Demo

Running through SQL statements on SQL Developer

Thank you!

End of ERP database security demonstration by CS5322 Group 15