

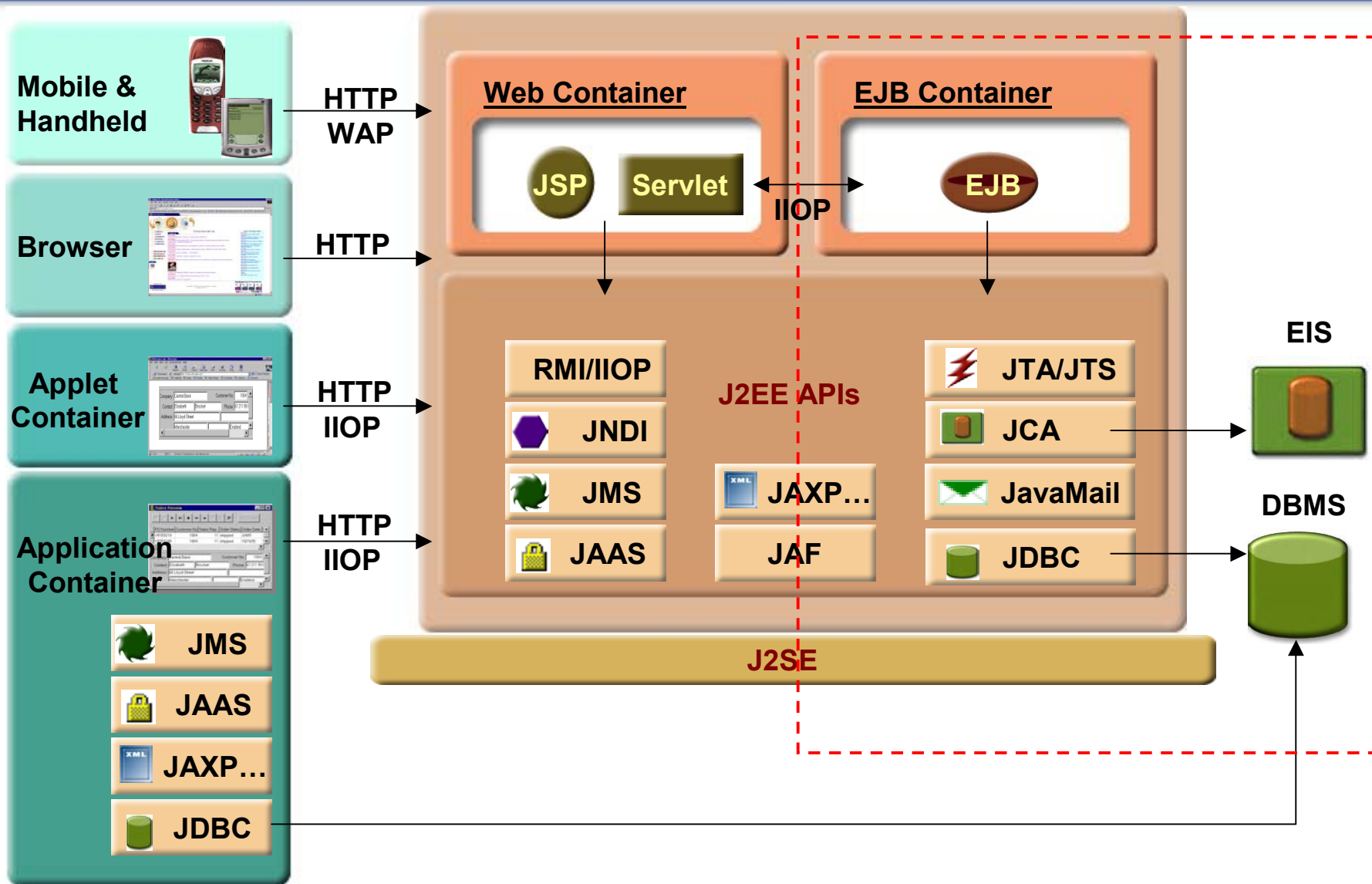


Отображение баз данных и компонентной модели на платформе J2EE

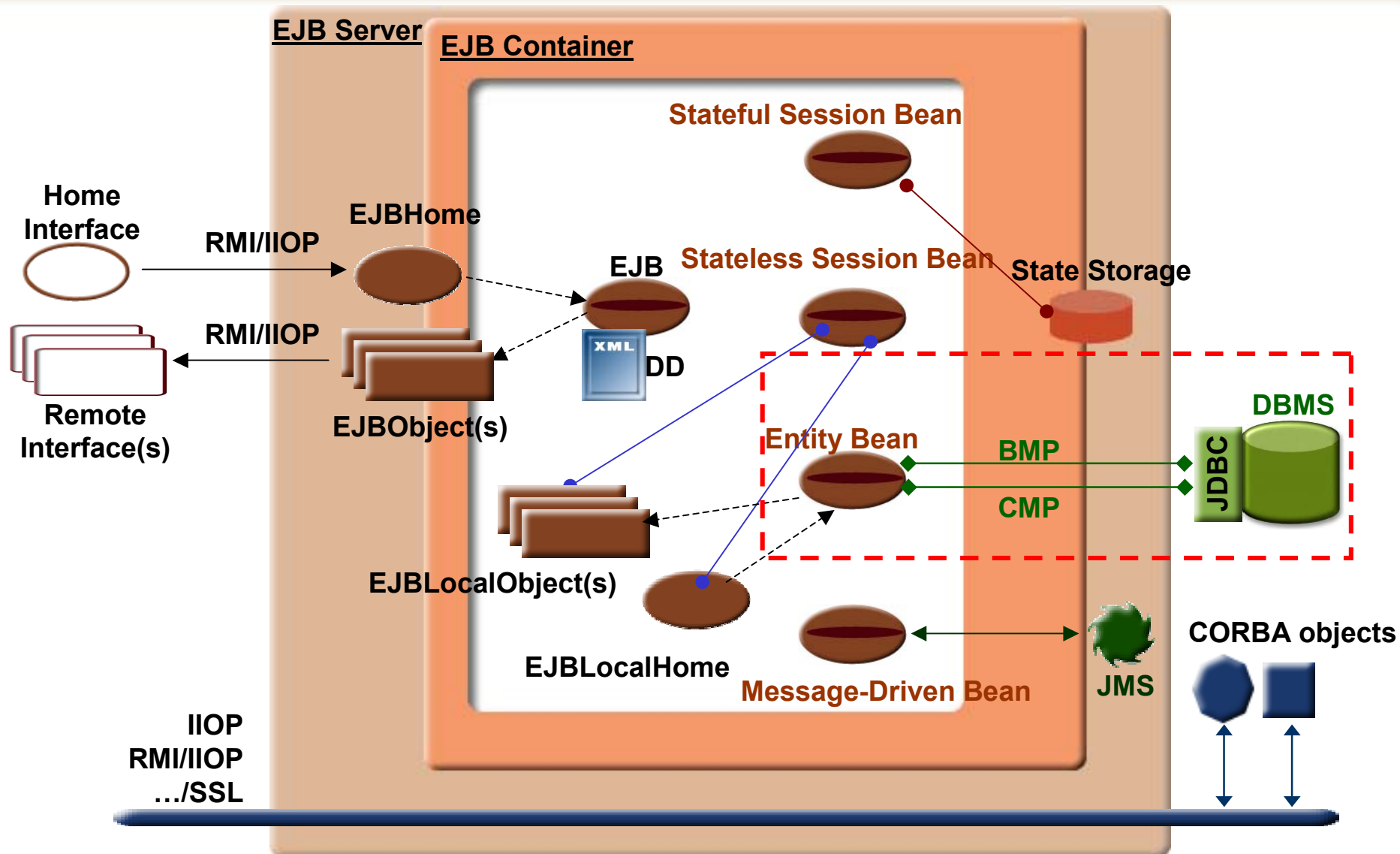
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директор

Aristarkhov@bitechnology.ru

Архитектура J2EE - Контейнеры

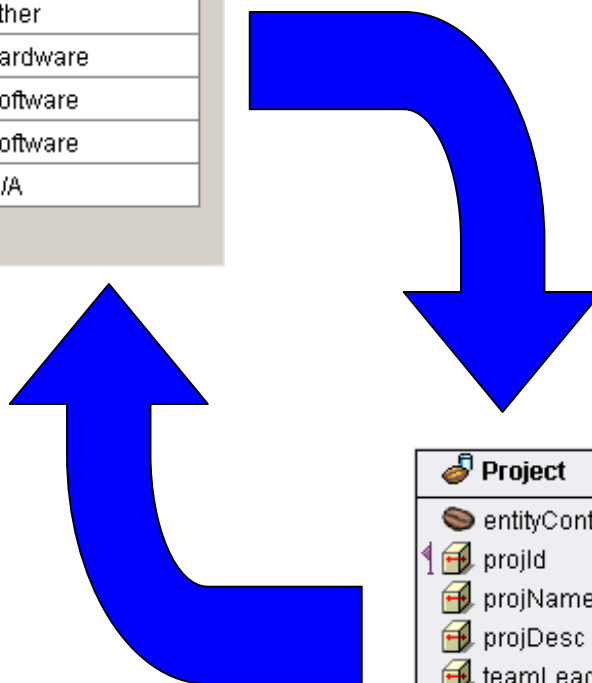












EJB Контейнер



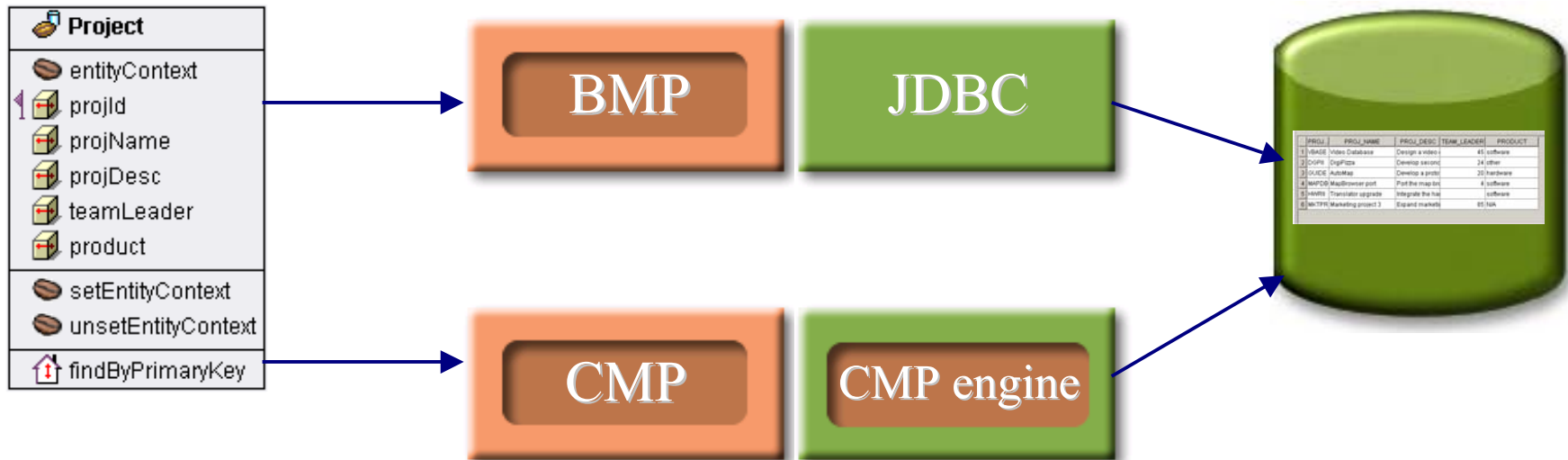
Таблицы и объекты

PROJ...	PROJ_NAME	PROJ_DESC	TEAM_LEADER	PRODUCT
1	VBASE	Video Database	45	software
2	DGP11	DigiPizza	24	other
3	GUIDE	AutoMap	20	hardware
4	MAPDB	MapBrowser port	4	software
5	HWR11	Translator upgrade		software
6	MKTPR	Marketing project 3	85	N/A

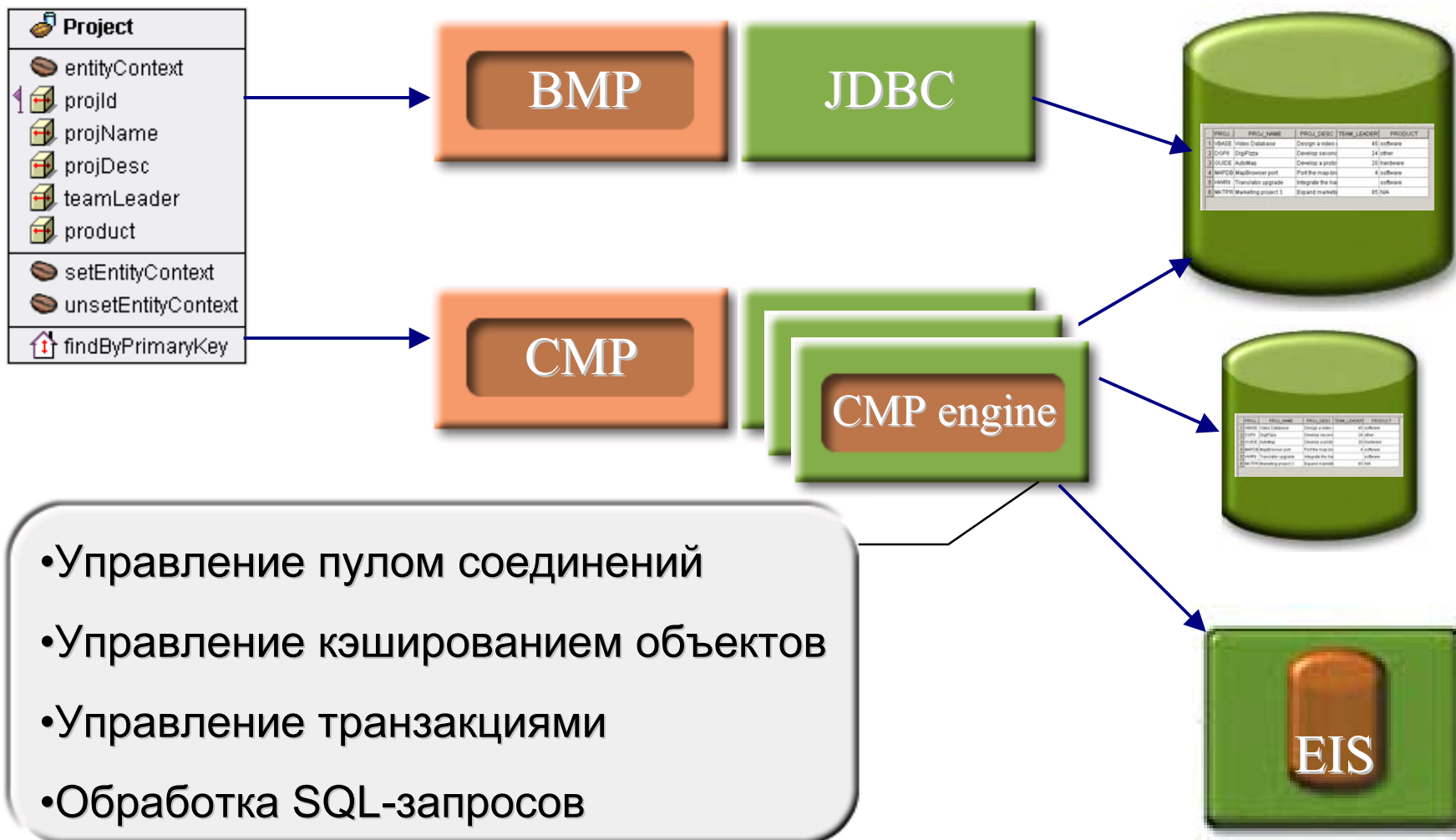


 Project
 entityContext
 projId
 projName
 projDesc
 teamLeader
 product
 setEntityContext
 unsetEntityContext
 findByPrimaryKey

Таблицы и объекты



Таблицы и объекты



- Управление пулом соединений
- Управление кэшированием объектов
- Управление транзакциями
- Обработка SQL-запросов

Таблицы и объекты

PROJ...	PROJ_NAME	PROJ_DESC	TEAM_LEADER	PRODUCT
1 VBASE	Video Database	Design a video	45	software

EMP_NO	PROJ_ID
1 144	DGP11
2 113	DGP11
3 24	DGP11
4 8	VBASE
5 136	VBASE

EMP_NO	FIRST_NAME	LAST_NAME	DEPT_NO	PHONE_...	HIRI
1 2	George	Nelson	600	250	12.88
2 4	Bruce	Young	621	233	12.88
3 5	Kim	Lambert	130	22	02.89
4 8	Leslie	Johnson	180	410	04.89
5 9	Phil		622	229	04.89
				34	01.90
				256	05.90
					06.90

DEPT_NO	DEPARTMENT	HEAD_DEPT	MNGR_NO	BUD
1 000	Corporate Headquarters		105	1 0
2 100	Sales and Marketing	000	85	2 0
3 600	Engineering	000	2	1 1
4 900	Finance	000	46	4
5 180	Marketing	100		1 5
6 620	Software Products Div.	600		1 2
7 621	Software Development	620		4
8 622	Quality Assurance	620	9	300 000
9 623	Customer Support	620	15	650 000
10 670	Consumer Electronics Div.	600	107	1 150 000
11 671	Research and Development	670	20	460 000
12 672	Customer Services	670	94	850 000
13 130	Field Office: East Coast	100	11	500 000
14 140	Field Office: Canada	100	72	500 000
15 110	Pacific Rim Headquarters	100	34	600 000

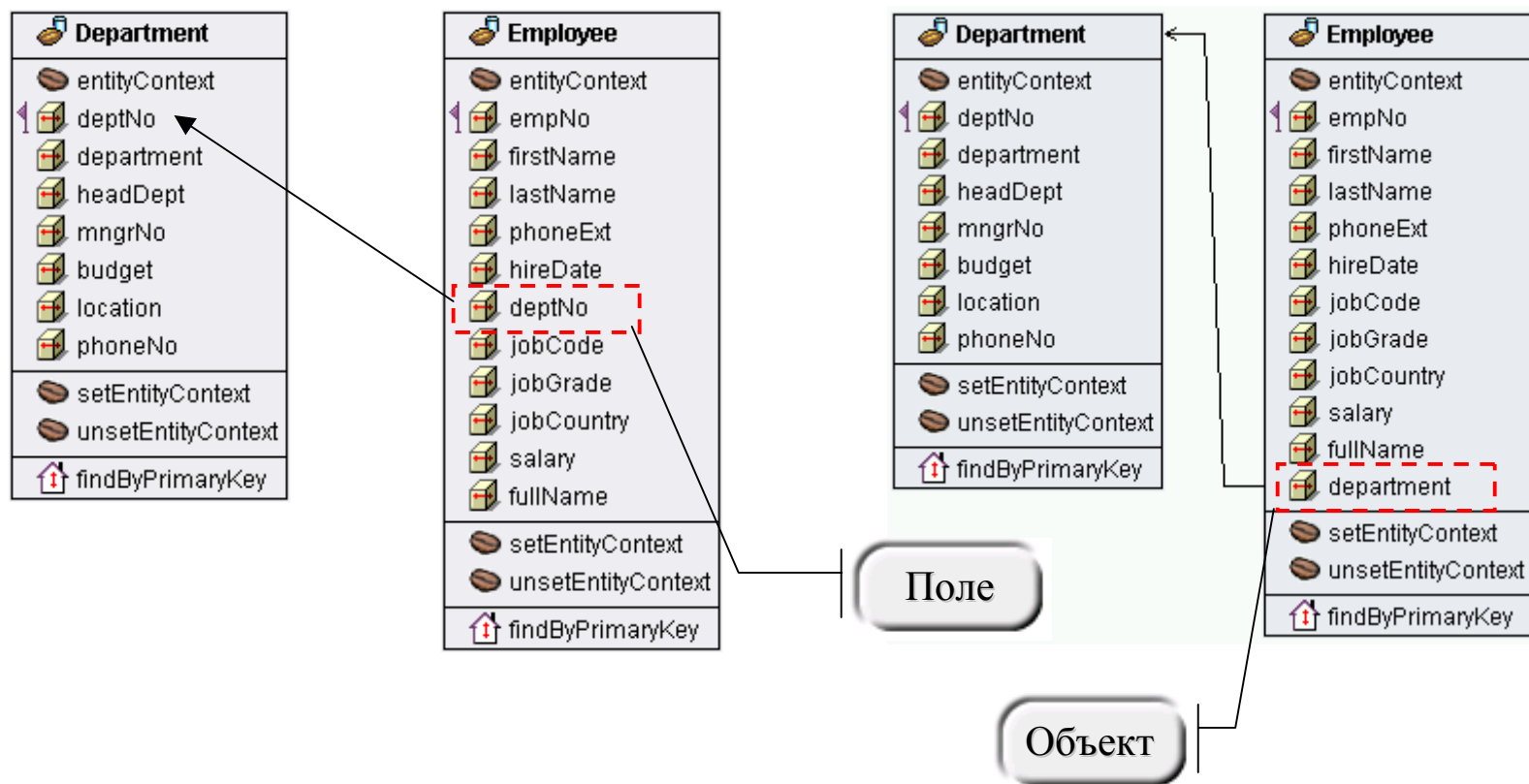
Project
entityCo
projId
projName
projDesc
teamLe
product
setEntit
unsetEr
findByP

Department
entityCor
deptNo
department
headDep
mngnNo
budget
location
phoneNc
setEntit
unsetEnt
findByPri

Employee
enti
em
first
last
phc
hire
dep
job
jobGrade
jobCountry
salary
fullName
setEntityContext
unsetEntityContext
findByPrimaryKey

EmployeeProject
entityContext
empNo
projId
setEntityContext
unsetEntityContext
findByPrimaryKey

Таблицы и объекты

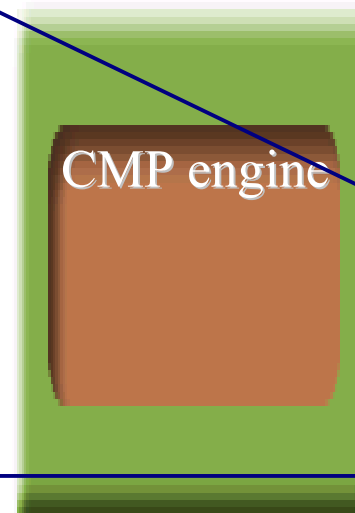


Container-managed relationship (CMR)

Таблицы и объекты

	PROJ...	PROJ_NAME	PROJ_DESC	TEAM_LEADER	PRODUCT
1	VBASE	Video Database	Design a video	45	software
2	DGPIL	DigiPizza	Develop second	24	other
3	GUIDE	AutoMap	Develop a proto	20	hardware
4	MAPDB	MapBrowser port	Port the map bro	4	software
5	HWRIL	Translator upgrade	Integrate the ha		software
6	MKTPR	Marketing project 3	Expand marketi	85	N/A

	EMP_NO	FIRST_NAME	LAST_NAME	DEPT_NO	PHONE_...	HIRE
1	2	George	Nelson	600	250	12.88
2	4	Bruce	Young	621	233	12.88
3	5	Kim	Lambert	130	22	02.89
4	8	Leslie	Johnson	180	410	04.89
5	9	Phil	Forest	622	229	04.89
6	11	K. J.	Weston	130	34	01.90
7	12	Terri	Lee	000	256	05.90
8	14	Stewart	Hall	900	227	06.90
9	15	Katherine	Young	622	231	06.90



Project
entityContext
projId
projName
projDesc
teamLeader
product
setEntityContext
unsetEntityContext
findByPrimaryKey

Employee
entityContext
empNo
firstName
lastName
phoneExt
hireDate
deptNo
jobCode
jobGrade
jobCountry
salary
fullName
setEntityContext
unsetEntityContext
findByPrimaryKey

- SQL-подобный синтаксис

```
SELECT OBJECT(o)
FROM Order o
```

```
SELECT OBJECT(o)
FROM Order o
WHERE o.shipping_address.state = 'CA'
```

```
SELECT DISTINCT o.shipping_address.state
FROM Order o
```

- Работа с коллекциями

```
SELECT DISTINCT OBJECT(o)
FROM Order o, IN(o.lineItems) l
WHERE l.product.name = ?1
```

```
SELECT DISTINCT l.product.name
FROM Order o, IN(o.lineItems) l
```



Отображение баз данных и компонентной модели на платформе J2EE

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