

To be continued...

КУПЛЕНО НА  
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СЛЕРМ



# Определение технологий

Под что выбираем технологии:

- Базы данных

Технологические критерии:

1. Структура хранения данных
2. Ограничения
3. Скорость работы

Бизнес критерии:

1. Спрос данных
2. Частота изменения данных
3. Наличие компетенций

# Определение технологий

Под что выбираем технологии:

- Backend

Технологические критерии:

1. Производительность
2. Ограничения
3. Компилируемые или интерпретируемые

Бизнес критерии:

1. Наличие компетенций
2. Возможность быстрого перехода на новый стек, переиспользование предыдущих разработок

# Определение технологий

Под что выбираем технологии:

- Frontend по требованию

Технологические критерии:

1. Скорость работы
2. Возможность стандартизации интерфейса

Бизнес критерии:

1. Наличие компетенций
2. Скорость внедрения красивых элементов

# Определение технологий

- Open-source и Proprietary



Критерий	Продукт 1	Продукт 2	Продукт 3	Продукт 4	Продукт 5	Продукт 6
Open Source	✓	✗	✗	✓	✓	✗
Поддержка	✗	✓	✓	✓	✗	✓
Функции (необходимые)	45%	60%	80%	65%	75%	90%
Лицензия	Безлимитные	Безлимитные	Безлимитные	Безлимитные	По пользователям	Подписка
Модификация продукта	✓	Отсутствует	Частичная	✓	✓	Отсутствует
Совместимость						
Наличие платной версии	✓			✓	✗	

# Определение технологий

Comparison of Office Suites		WordPerfect Office	Microsoft Office	Work	Ability Office	LibreOffice	SoftMaker Office	WPS Office	Sas Office	Calligra Suite	Grime Office	ThinkFree Office	Google Docs
Company		Corel	Microsoft	Apple	Ability Software International	The Document Foundation	SoftMaker Software GmbH	Kingsoft	WuXi Erikson	ICE e.V.	GNOME Foundation	Harman Inc.	Google
Country		Canada	USA	USA	UK	Germany	Germany	China	Norway	Germany	USA	South Korea	USA
Licence		Proprietary	Proprietary	Proprietary	Proprietary	Open source	Proprietary	Proprietary	Open source	Open source	Open source	Proprietary	Proprietary
Price		Commercial	Commercial	Commercial	Commercial	Free	Commercial	Commercial/Free	Free	Free	Free	Commercial/Free	Free
First release		1979 (WordPerfect), 1985 (Paradox), 1988 (Quattro Pro), 1993 (WordPerfect Office)	1983 (Word), 1985 (Excel), 1990 (Powerpoint & Microsoft Office)	1984 (AppleWorks), 2005 (iWork)	1985 (Ability), 1987 (Ability Plus), 1995 (Ability for Windows), 1998 (Ability Office)	1985 (StarOffice), 1995 (StarOffice), 2002 (OpenOffice.org), 2010 (LibreOffice)	1987 (TextMaker), 1994 (SoftMaker Office)	1988	1997	1997 (KOffice), 1998 (KWord), 2000 (KOffice), 2011 (Calligra Suite)	1st components in 1998 (Abiword and Gimp)	1988	2006
Based on		Standalone applications	Standalone applications	AppleWorks	Ability Plus	StarOffice, OpenOffice.org	Standalone applications	-	-	KOffice	Standalone applications	-	-
Languages		12	36	26	8	114	32	8	11	11	90	14	53
Native file format		wpd, wps, wks	doc, xls, ppt	pages, numbers, key	aww, awp, awp	odt, ods, odp	smk, gmd, gmd	wpd, wps, wps	wp, wps, wps	odt, ods, odp	abw, gnm, gnm	doc, xls, ppt	gdoc, gsheet, gslides
Market share		2%	76%	1%	0%	5%	0%	11%	0%	0%	0%	0%	65%
Comment		Highest in India and Canada (ca. 4%)	Ranges from 65-90% per country	Highest in Luxembourg and Austria (ca. 3.7%)	Low market share	Highest in Poland, Czechia, and Germany (ca. 22%)	National market shares all below 0.2%	Stronghold in China	Low market share, focus on low hardware requirements	National market shares all below 0.2%	Low market share	Low market share	Number for US business, often used besides MS Office
<b>Components:</b>													
Text processing		WordPerfect, Quattro Pro	Word, Excel	Pages, Numbers	Ability all-in-one, Ability Spreadsheet, Ability Presentation	LibreOffice Writer, LibreOffice Calc, LibreOffice Impress, LibreOffice Draw	TextMaker, PlanMaker	Kingsoft Writer, Kingsoft Spreadsheets, Kingsoft Presentation	Pathetic Writer, JedPlus	Calligra Words, Calligra Sheets, Calligra Stage	Abiword, Gnumeric	ThinkFree Write, ThinkFree Calc, ThinkFree Show	Google Docs, Google Sheets, Google Slides, Google Drawing
Spreadsheets		Corel Presentations, Corel Visual Intelligence	Powerpoint, Publisher, Visio, Picture Manager	-	Ability Spreadsheet, Ability Presentation, Ability Draw	LibreOffice Calc, LibreOffice Impress, LibreOffice Draw	SoftMaker Presentations	Kingsoft Spreadsheets, Kingsoft Presentation	Scheme in a Grid, Egon Animator	Calligra Flow, Krita, Karbon	Inkscape, glades, Dia	ThinkFree Calc, ThinkFree Show	Google Sheets, Google Slides, Google Drawing
Graphics		WordPerfect Lightning	WordPerfect Lightning	-	Ability Database	LibreOffice Base, LibreOffice Math	BookWater	Equation Editor	Equation Editor	Brandung, Kool, KFormulas, Calligra Plan	Glim, Evolution, Enroute, GnuCash	-	Google Keep, Google Fusion Tables, Google Forms
Database		Paradox	Access	-	Ability Database	LibreOffice Base, LibreOffice Math	BookWater	Equation Editor	Equation Editor	Brandung, Kool, KFormulas, Calligra Plan	Glim, Evolution, Enroute, GnuCash	-	Google Keep, Google Fusion Tables, Google Forms
Other		Corel VideoStudio, Equation Editor, WordPerfect Mail	Outlook, Lync, Project, Sharepoint, Equation Editor	-	-	-	-	-	-	-	-	-	-
Components overall score		100%	100%	43%	79%	84%	57%	57%	57%	100%	86%	43%	100%
<b>Supported platforms:</b>													
Desktop (offline)													
Windows		yes	yes	no	yes	yes	yes	yes	no	yes	yes/partially	yes	yes (Chrome office appl)
Mac OS X		dropped	yes/partially	yes	no	yes	no	no	yes	yes	yes/partially	yes	yes (Chrome office appl)
Linux		dropped	no	no	no	yes	yes	yes (alpha stage)	yes	yes	yes	yes	yes (Chrome office appl)
BSD		no	no	no	no	yes	no	no	yes	yes	yes/partially	no	no
UNIX		no	no	no	no	yes	no	no	yes	yes	yes/partially	no	no
Other		dropped	no	no	dropped	porting possible	no	no	porting possible	porting possible	yes/partially (AmigaOS, OS/2)	yes (Android, iOS)	no
Score (weight 1/3)		17%	33%	17%	17%	43%	33%	33%	50%	40%	100%	43%	50%
Mobile (offline)													
Android		no	yes	no	no	yes	yes	yes	no	yes	yes/partially (numeric)	yes	yes
iOS		no	yes	yes	no	no, but announced	no	yes	no	no	no	yes	yes
Windows Phone		no	yes	no	no	no	dropped	no	no	no	no	no	no
BlackBerry 10 OS		no	no	no	no	no	no	no	no	no	no	no	no
Firefox OS		no	no	no	no	no	no	no	no	no	no	no	no
Sailfish OS		no	no	no	no	no	no	no	no	yes	no	no	no
Ubuntu Touch		no	no	no	no	no	no	no	no	no	no	no	no
Tizen		no	no	no	no	no	no	no	no	no	no	no	no
Score (weight 1/3)		0%	36%	17%	0%	17%	17%	20%	0%	20%	17%	20%	25%
In browser (online)													
Edge / Internet Explorer		no	yes	yes	no	no, but announced	no	no	no	no	no	yes	yes
Firefox		no	yes	no	no	no, but announced	no	no	no	no	no	yes	yes
Chrome		no	yes	yes	no	no, but announced	no	no	no	no	no	yes	yes
Opera		no	yes	no	no	no, but announced	no	no	no	no	no	yes	no
Safari		no	yes	yes	no	no, but announced	no	no	no	no	no	yes	yes
Score (weight 1/3)		0%	100%	60%	0%	0%	0%	0%	0%	0%	0%	100%	60%
Supported platforms overall score		8%	57%	30%	8%	32%	25%	39%	17%	36%	38%	84%	52%
<b>Compatibility:</b>													
Read OOXML (Office Open XML)		docx, xlsx, pptx, ...	yes	yes (native)	yes	yes	yes	yes/partially	no	yes	yes/partially	yes	yes
Read OOXML (Office Open XML)		docx, xlsx, pptx, ...	yes	yes (native)	yes	yes	yes	no	no	no	yes/partially	yes	yes
Read ODF (OpenDocument Format)		odt, ods, odp, ...	yes	yes, but not on all systems	no	yes	yes/partially	no	no	yes (native)	yes/partially	no	yes
Write ODF (OpenDocument Format)		odt, ods, odp, ...	yes	yes, but not on all systems	no	yes	yes/partially	no	no	yes (native)	yes/partially	no	yes
Import PDF		pdf	yes	yes, but not on all systems	no	yes	no	no	no	no	no	yes	yes
Export PDF		pdf	yes	yes, but not on all systems	yes	yes	yes	yes	yes	yes	yes/partially	yes	yes
Read Microsoft Office 2003 files		xls, xls, ppt, ...	yes	yes	yes	yes	yes	yes	no	yes	yes/partially	yes (native)	yes
Read Rich Text Format		rtf	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Read CSV data		csv	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Read UOF (Uniform Office Format)		uof, uof, uof	no	no	no	yes	no	yes	no	no	no	no	no
Read Corel WordPerfect Office files		wpd, wps, wks	yes (native)	yes/partially	no	no	yes/partially	no	no	yes/partially	yes/partially	no	no
Read Work files		pages, numbers, key	no	no	yes (native)	yes/partially	no	no	no	no	no	no	no
Read Ability Office files		aww, awp, awp	no	no	no	yes (native)	no	no	no	no	no	no	no
Read SoftMaker Office files		smk, gmd, gmd	no	no	no	no	yes (native)	no	no	no	no	no	no
Read WPS Office files		wps, xls, ppt	no	no	no	no	no	yes (native)	no	no	no	no	no
Read Abiword, Gnumeric and Base files		abw, gnm, gnm	no	no	no	yes/partially	no	no	yes/partially	no	yes (native)	no	no
Compatibility overall score		57%	63%	38%	44%	61%	56%	44%	26%	50%	63%	44%	56%
<b>Received score:</b>		56%	73%	37%	40%	66%	43%	40%	33%	62%	62%	50%	69%
Rank		6	1	11	9	3	8	10	12	4	5	7	2
<b>Other notable office suites:</b>		Open source: Proprietary: Online:	Apache OpenOffice, NeoOffice, Tolmac Applware, Corel Home Office, EasyOffice, Papyrus, RagTime, Ashampoo Office, MarinerPal, Polaris Office, Documents To Go OnlyOffice, FreeOffice, TeamLab, Tai Wai, Zuban, Zoho										

# Определение технологий

Критерий	Kafka	RabbitMQ	Redis
Open Source	✓	✓	✓
Поддержка			
Выдерживаемая нагрузка	1 – 2М.	20 - 40К	1М
Персистентность	Да	Да	Нет
Режимы работы (1-2-1, 1-2-М)	✓✓	✓✓	✓✓
Маршрутизация	✗	✓	✗
Совместимость	***	***	***

\*\*\* Если использовать при реализации Celery, очередь задач на python или nodejs, то совместимость изменится

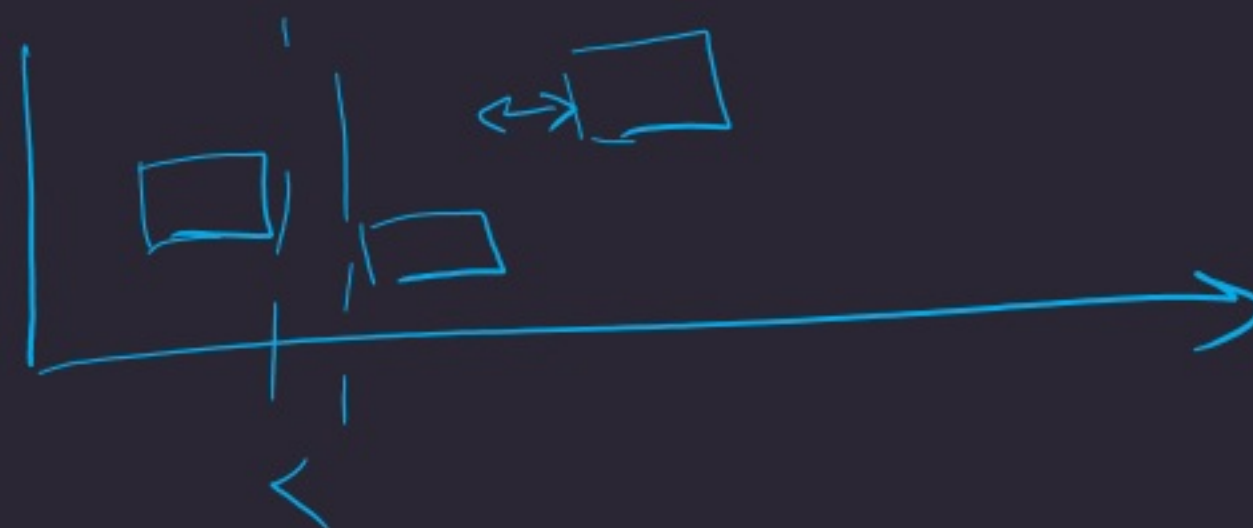
# Определение технологий

Имеющиеся компетенции и технологии:

1. DBMS - PostgreSQL, Redis
2. Backend - C#
3. Frontend - React
4. Queue - Kafka

Используемые паттерны:

1. Database per Microservice \*
2. Cache-Aside \* ?
3. Horizontal Scaling \*



Возможность миграции:

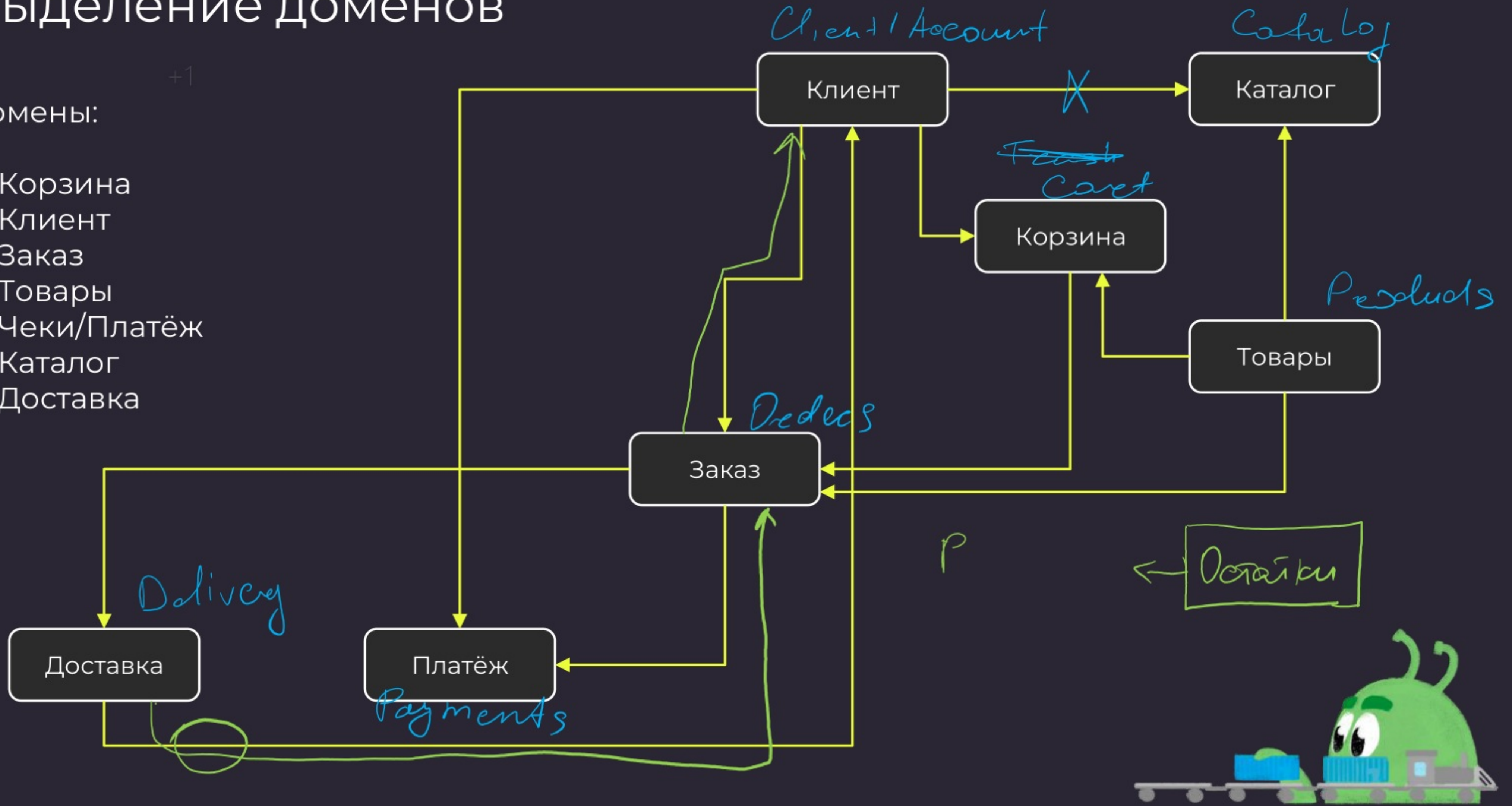
1. DBMS - 12 -> 14 SP
2. Backend - .Framework -> .NET 6 Controller.
3. Frontend - не требуется.
4. Queue - не требуется



# Выделение доменов

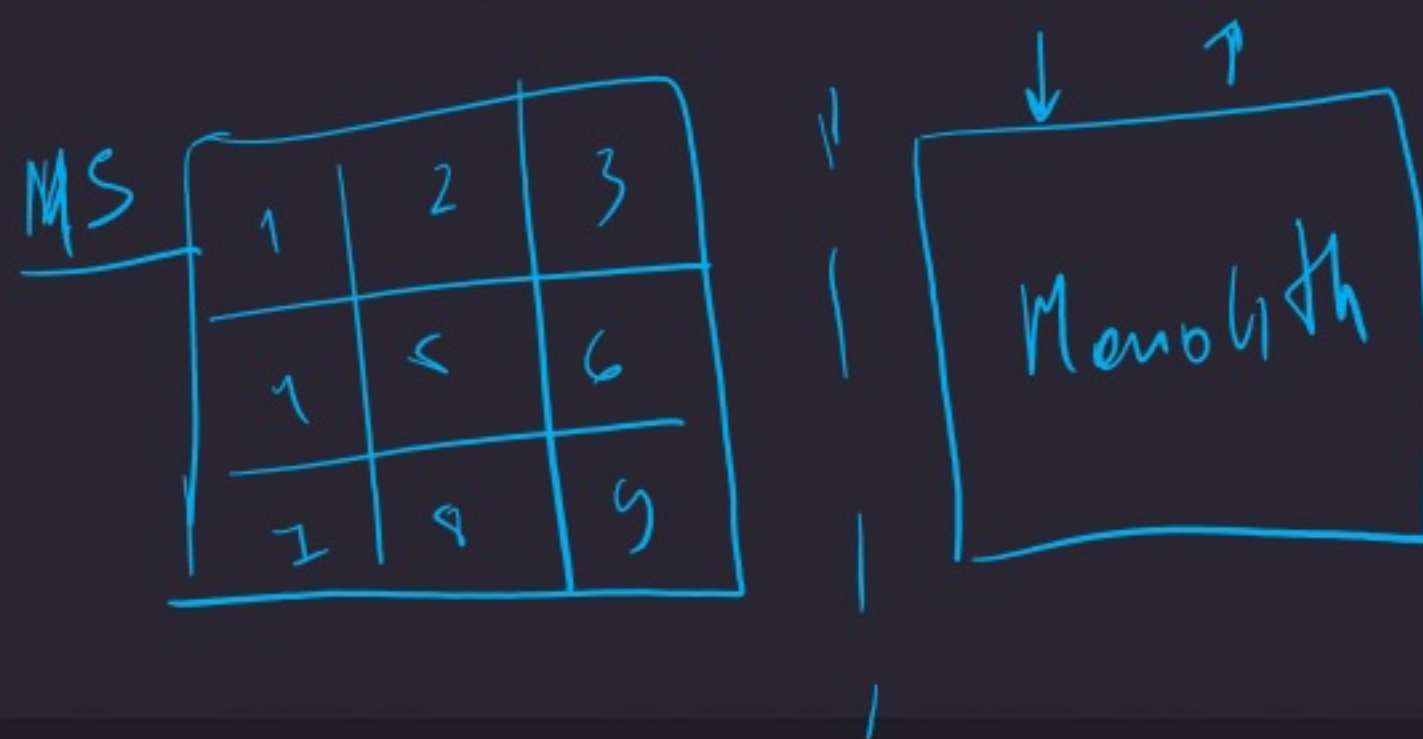
Домены:

- Корзина
- Клиент
- Заказ
- Товары
- Чеки/Платёж
- Каталог
- Доставка

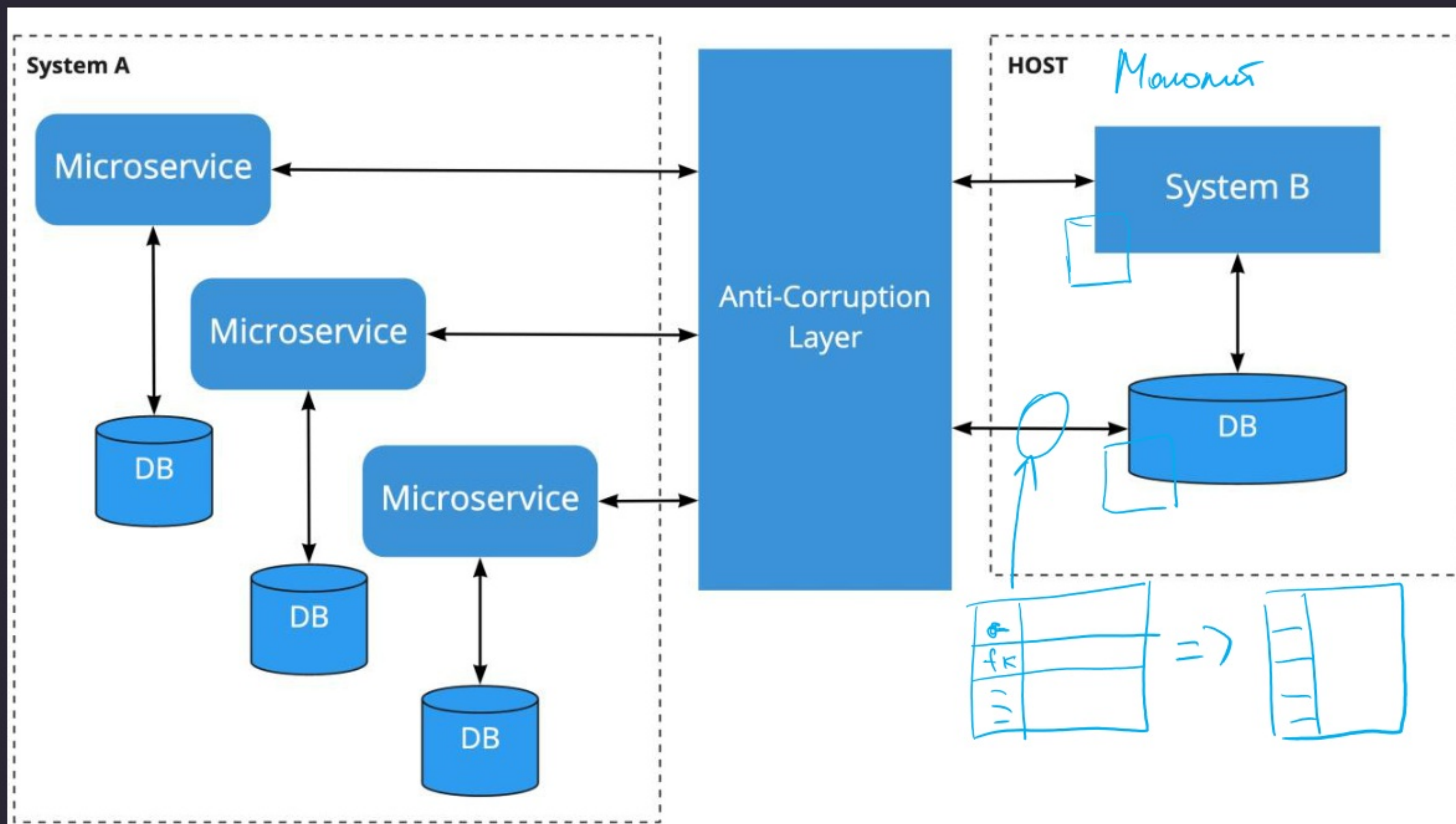


# Roadmap разделения

- MVP ➤
  - Day 0 -
  - Day 1
  - Day N
- Плавный переход +-
  - Быстрый переход +-
- Плавный переход при использовании Anti-corruption layer достигается за счет постепенного выноса микросервисов, если монолит имеет REST, то в качестве Anti-Corruption можно использовать Gateway.
  - Быстрый переход, сразу начинаем писать микросервисы, текущий монолит живет в режиме стагнации



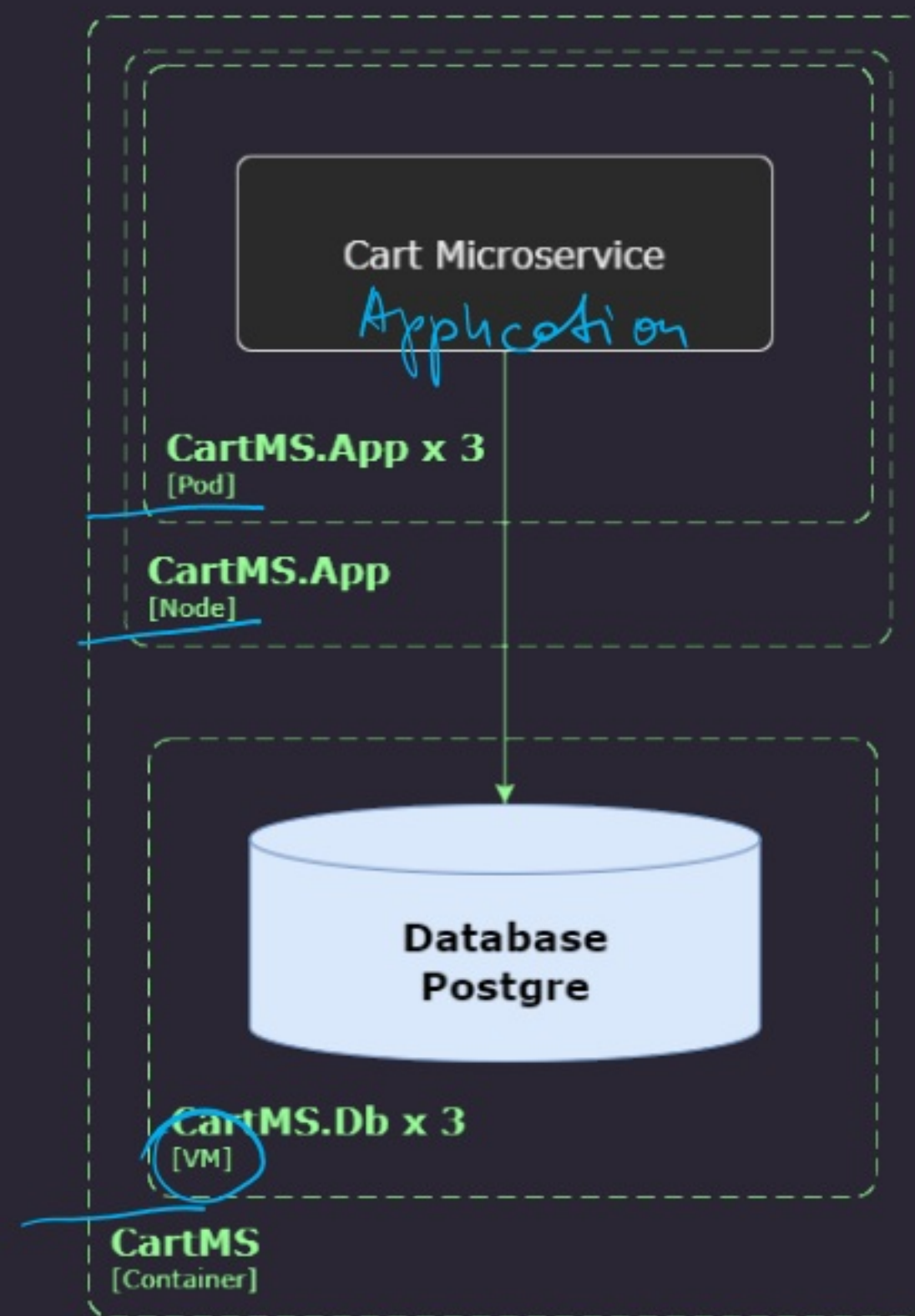
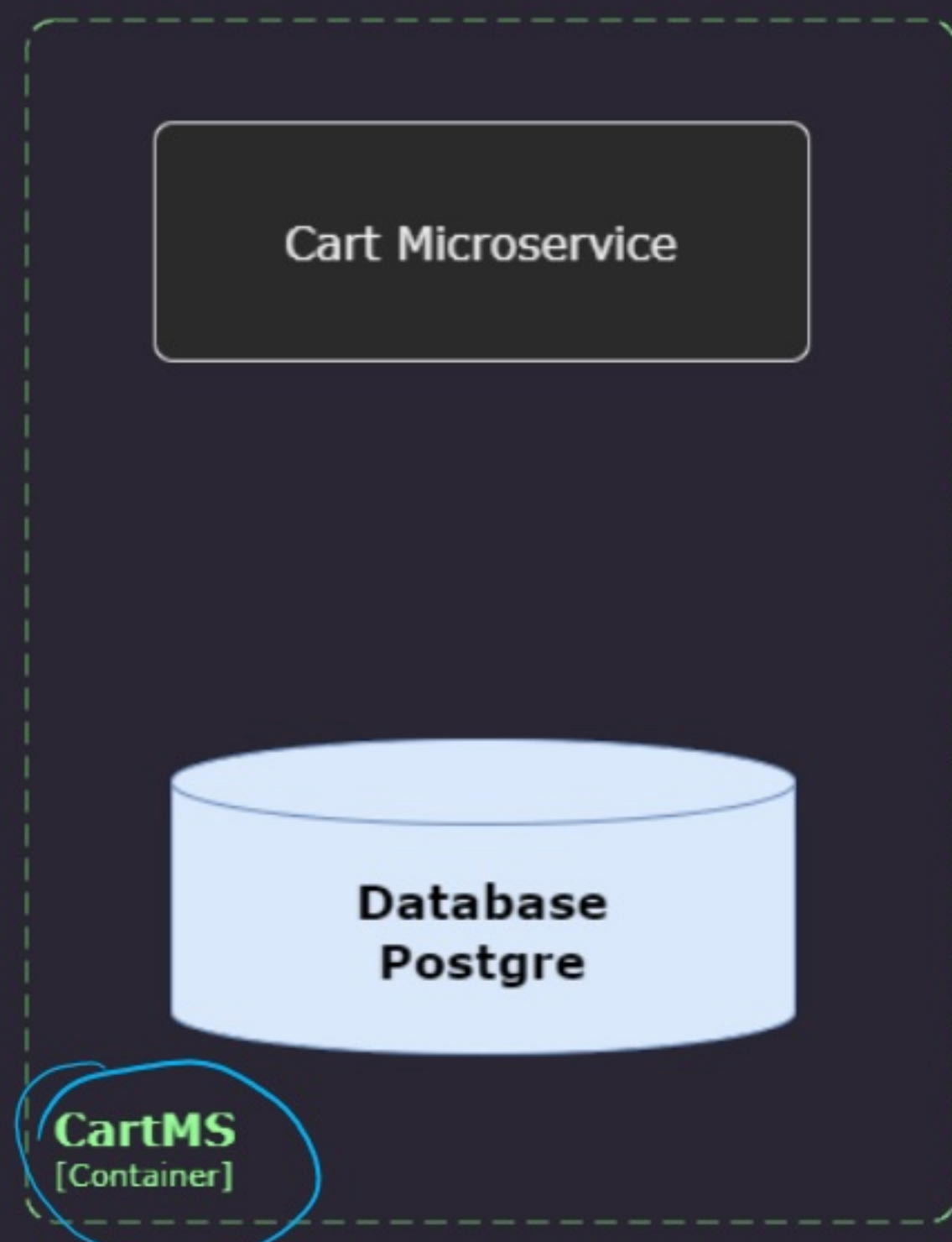
# Roadmap разделения



! Антикоррупционный слой по факту трансформирует данные из модели системы А в модель системы В, и берет всю логику преобразования и маршрутизации на себя.

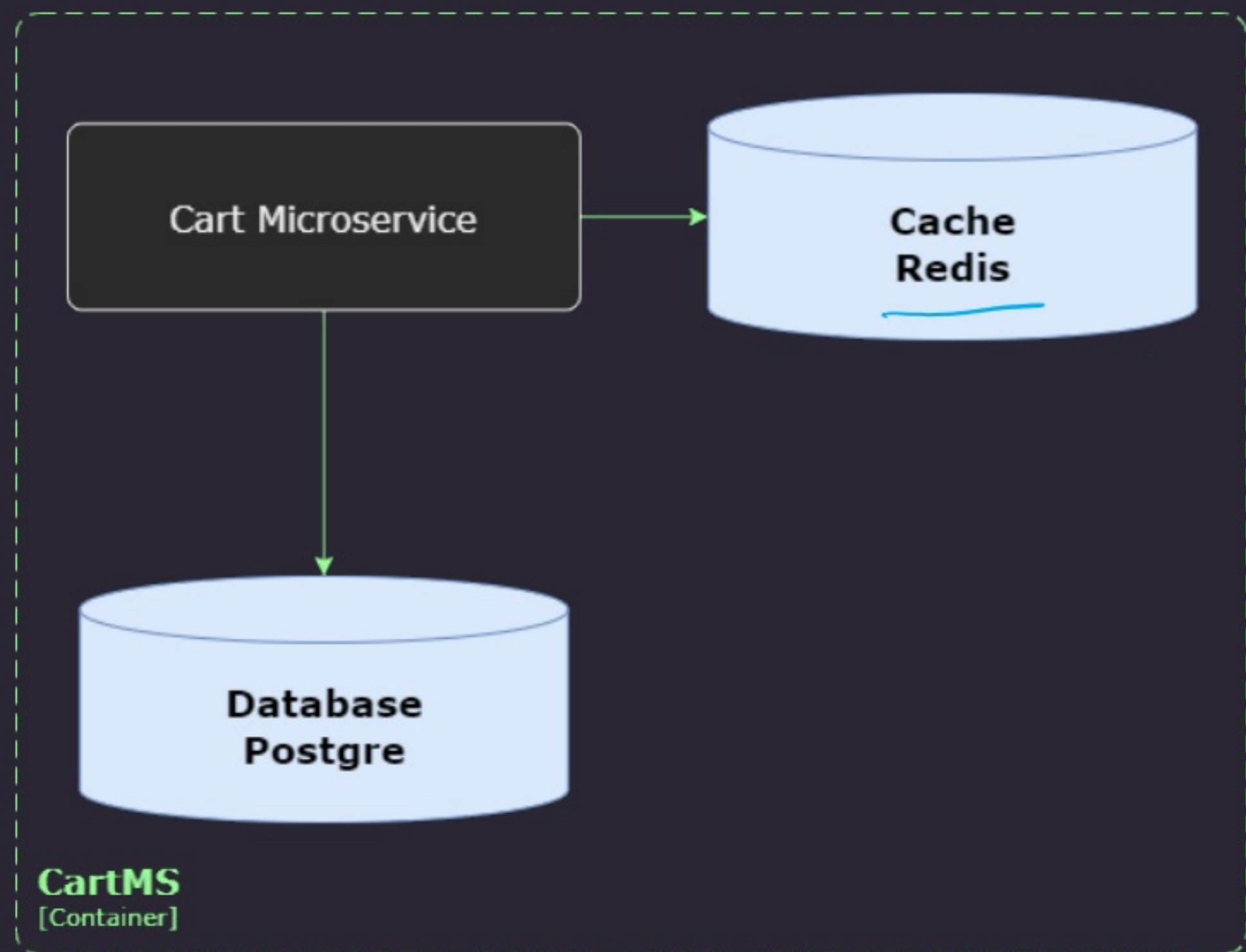
# Определение технологий

Каждый микросервис имеет собственную БД  
Database per Microservice



# Определение технологий

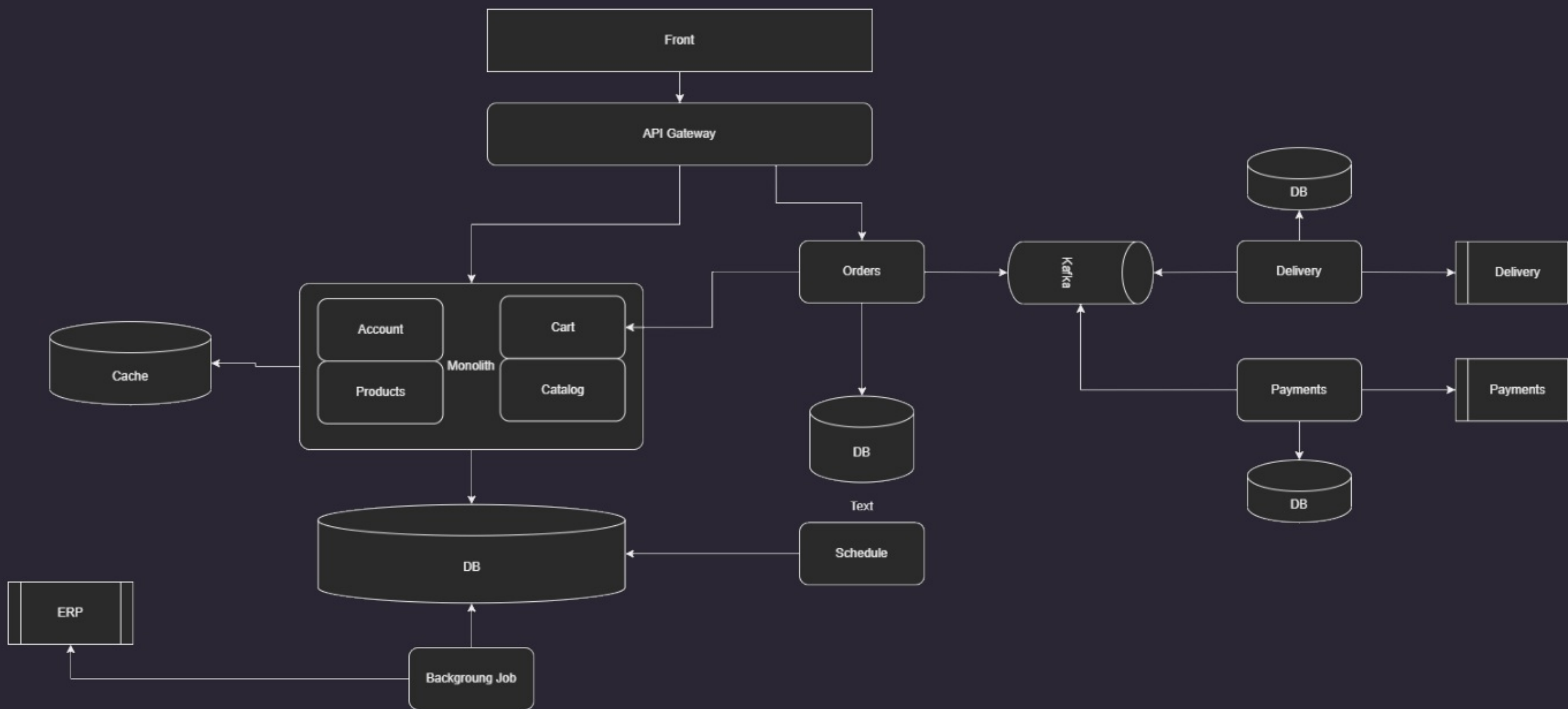
Каждый микросервис имеет собственную БД  
Cache-Aside



А теперь перейдём в **real-time**

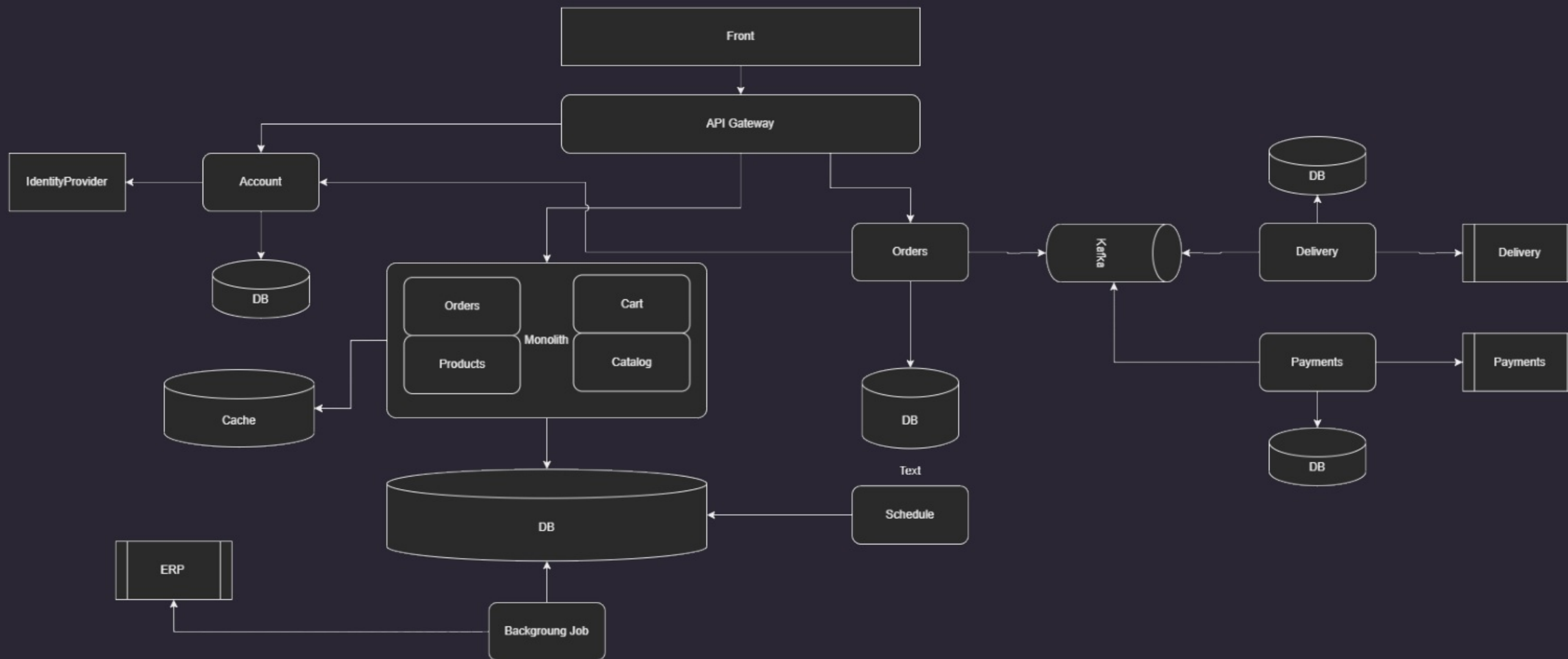
# Roadmap разделения

- Day 0



# Roadmap разделения

- Day 1



# Roadmap разделения

- Day N

