sqlbits

SPEAKEASY

Who am I?

- SQL Server Developer & DBA
- Author on Simple Talk
- Co-leader of SQL South West User Group
- Co-organiser of SQL Saturday Exeter / Data In Devon (Apr 26/27 2019)
- SQLBits Committee Member

Agenda

- Why do we want to keep a DBA happy?
- Development process
  - Requirements
  - Good coding practice
  - Source Control
  - Unit Tests
  - Continuous Integration

FEEDBACK FORMS

PLEASE FILL OUT AND PASS TO YOUR ROOM
HELPER BEFORE YOU LEAVE THE SESSION

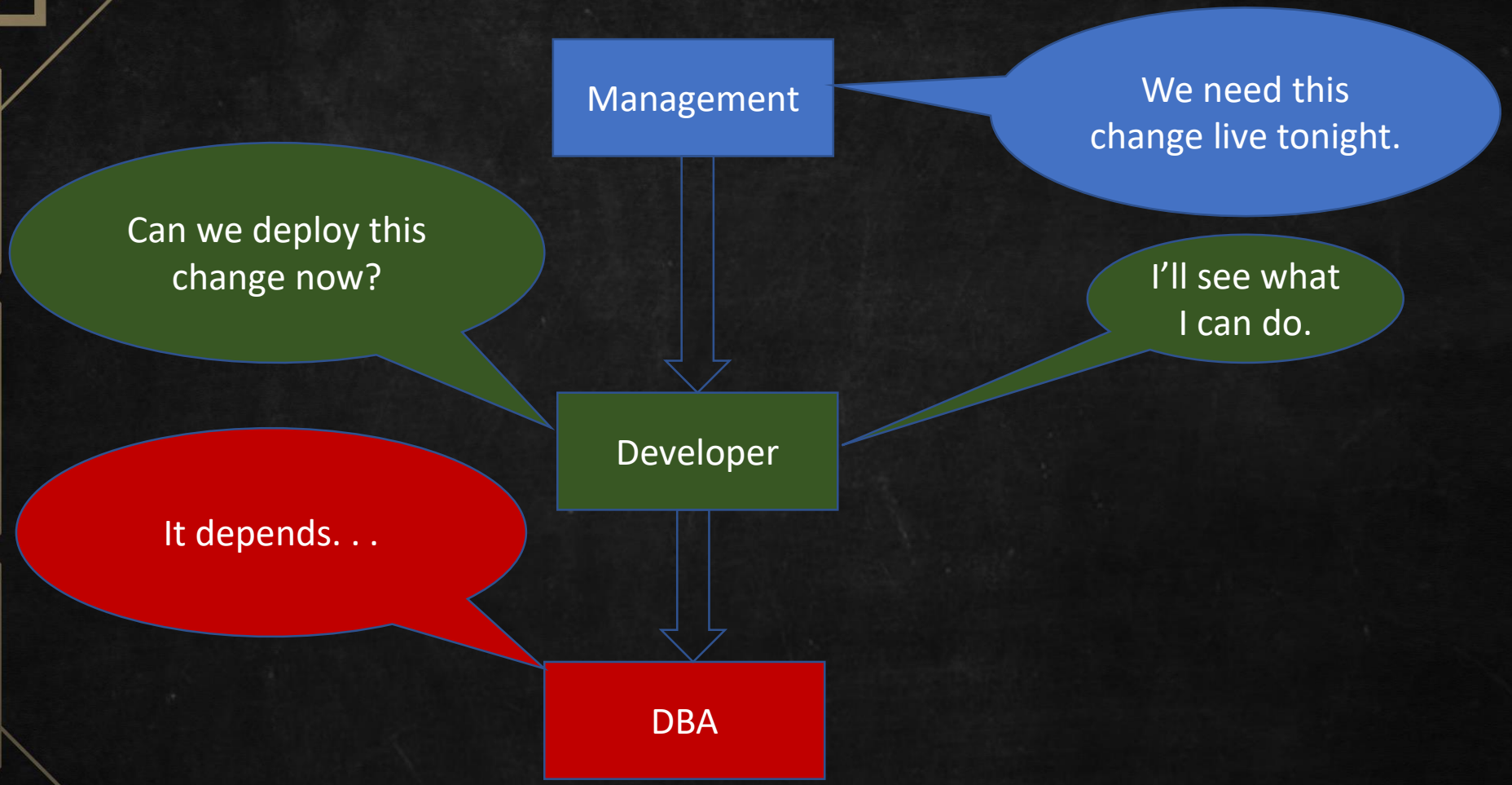
THIS IS NOT A PERFORMANCE TUNING SESSION

Why do we want to keep a DBA happy?

Why?

- Who does database change deployment?
- Who is responsible for the databases in Production?

The DBA

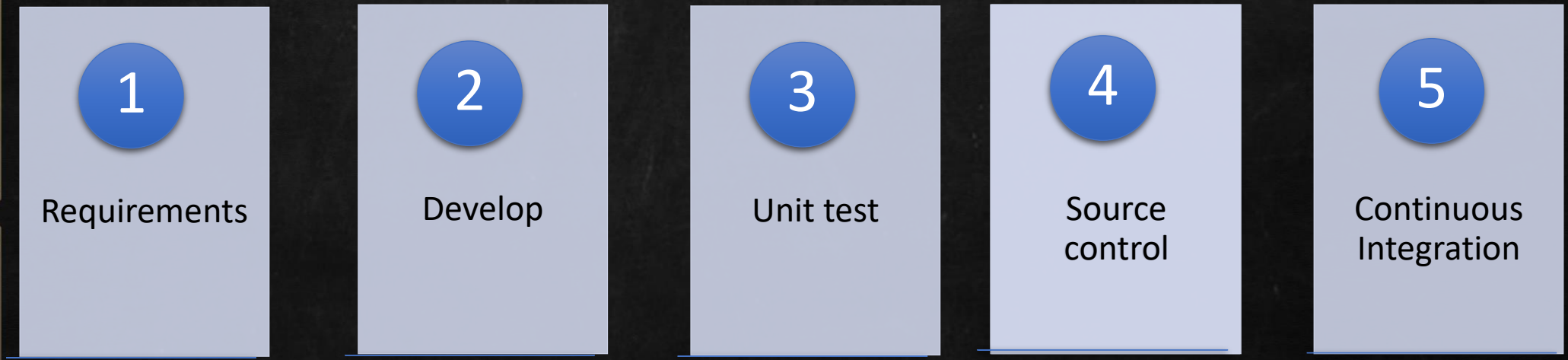

Management
We need this change live tonight.
Can we deploy this change now?
I'll see what I can do.
Developer
It depends. . .
DBA

Developers and DBAs need to talk!!

What do you talk about?

- Development process

Development Process



Get management buy in and understanding

What else do you talk about?

- How much lead time does the DBA need for deployment
- Discuss code requirements up front and during development process
- Any coding Do and Do nots
- Indexing – who does it?
- Any naming convention
- Testing
- Code/peer review
- How does the DBA deploy?

Development Process

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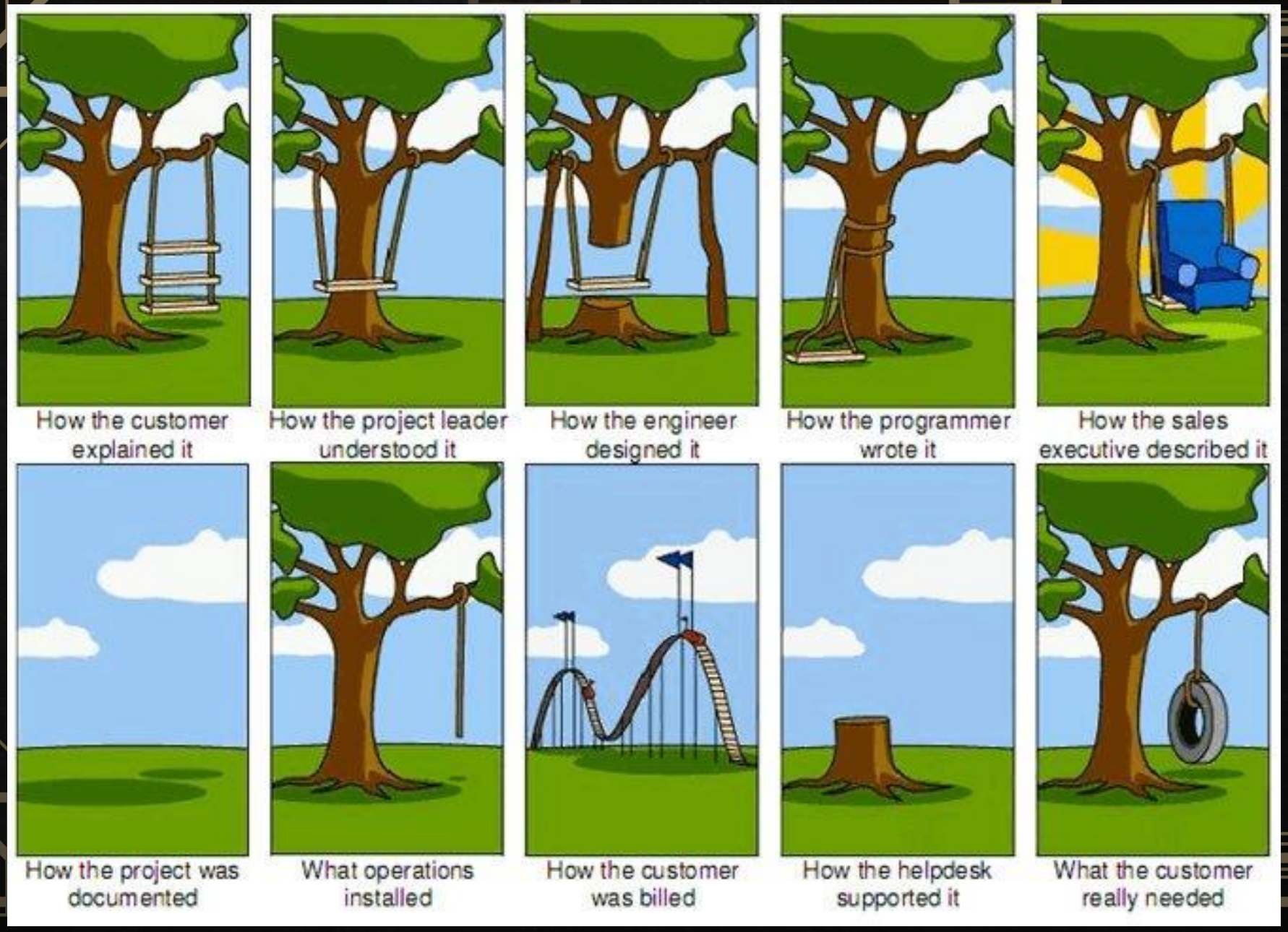
Requirements

Requirements

- What are they?
- Why are they important?


How the customer explained it
How the project leader understood it
How the engineer designed it
How the programmer wrote it
How the sales executive described it
How the project was documented
What operations installed
How the customer was billed
How the helpdesk supported it
What the customer really needed

Produce a list of all people who have worked here for a long service award

Produce a list of all people who have worked here for over 10 years

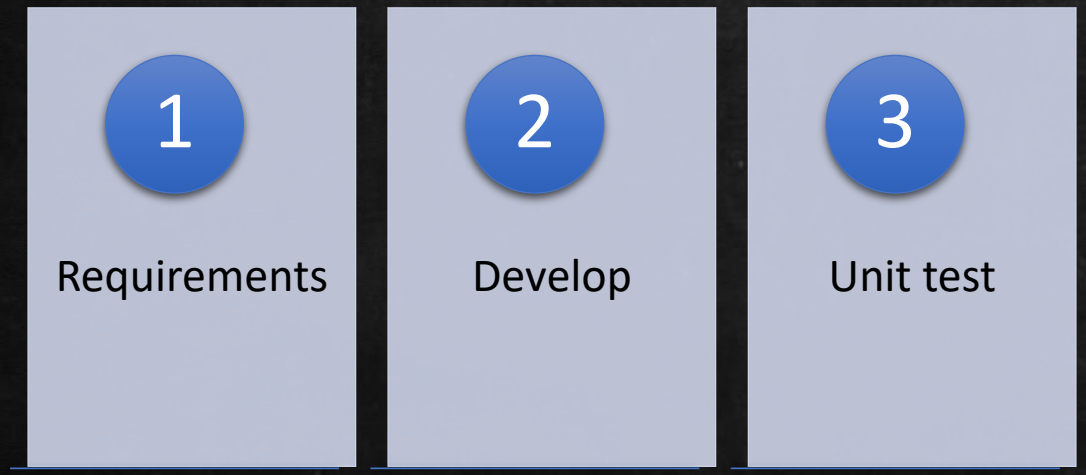
Produce a list showing Firstname, Surname, Annual Salary and start date of all employees who have worked here for more than 10 years

Development Process

Good coding practice

- Comment your code
- Do not use select *
- Do not use subqueries/functions in where clause
- Do not use inappropriate data types
- Do not insert without a column list
- Use Set rather than select when populating variables
- Use temporary tables and table variables appropriately

Development Process



Unit tests

- What is a unit test?
- What do you test?
- How do you unit test?

What is a unit test

- A test that tests one piece of functionality ONLY
- Must be quantifiable and measurable

Produce a list showing Firstname, Surname, Annual Salary and start date of all employees who have worked here for more than 10 years

- Test: returns someone who has worked here for more than 10 years
- Test: does not return someone who has not worked here for 10 years
- Test: Multiple rows

How do we test

- tSQLt
- Redgate SQL Test

Source control

- What is source control?
- What tools to use?
- How?

What is source control?

A component of software configuration management, **version control**, also known as **revision control** or **source control**, is the management of changes to documents, computer programs, large web sites, and other collections of information.

What tools can I use?

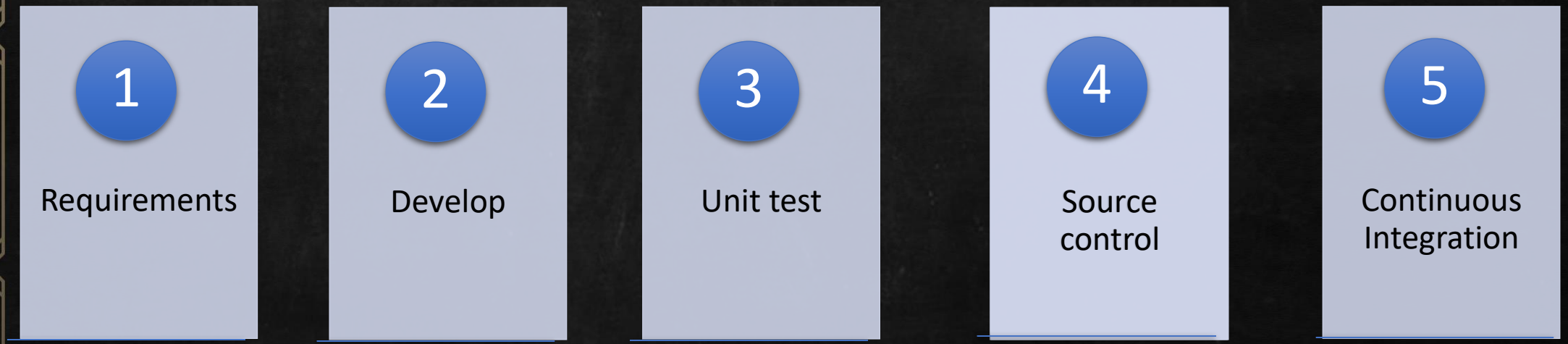
Repository

- Git
- Bitbucket
- TFS
- Etc. . . .

With

- Redgate's SQL Source Control
- ApexSQL
- VersionSQL

Development Process



Continuous integration

- What is it
- Why use it
- Tools

What is continuous integration

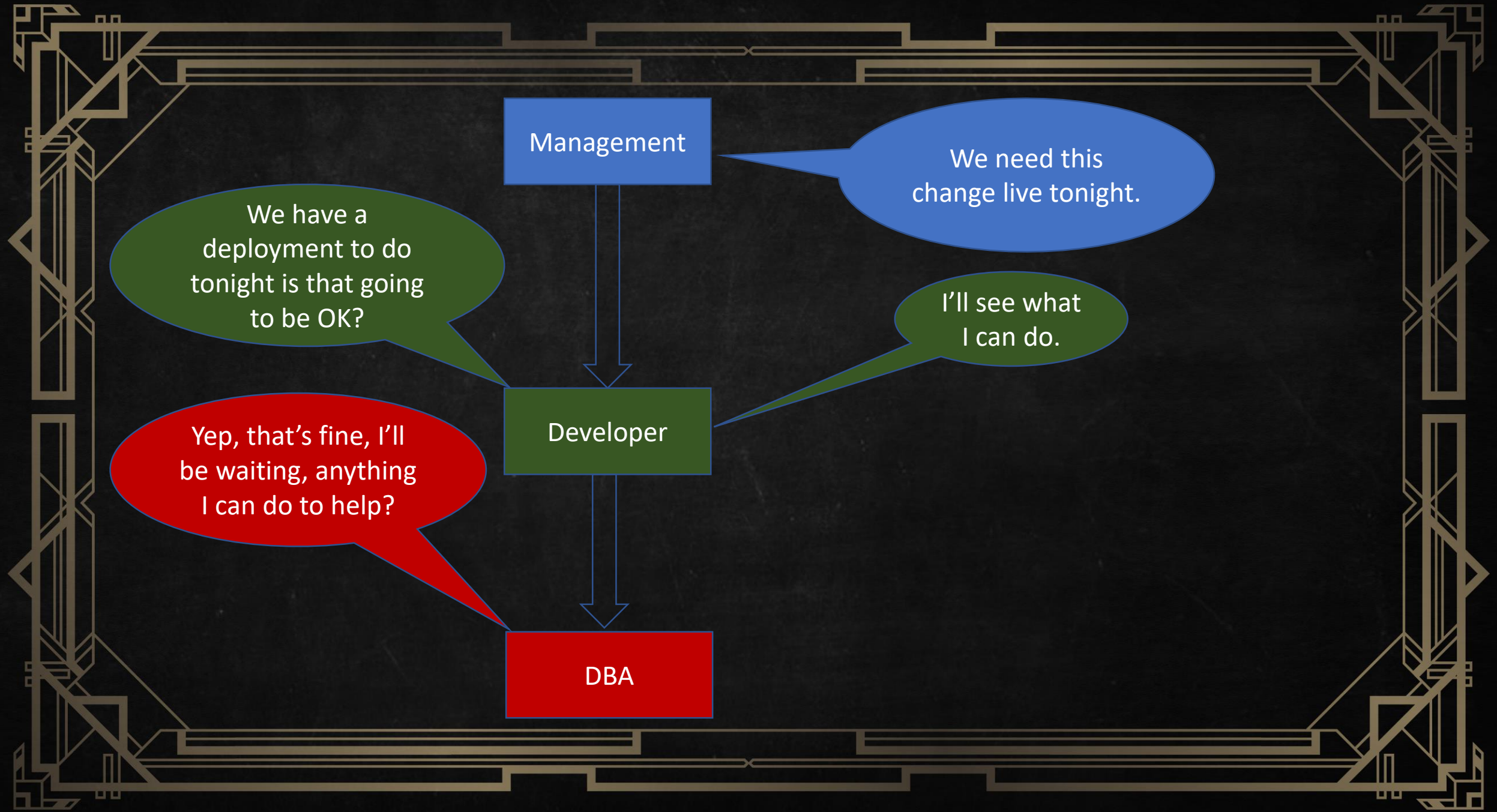
- **Continuous Integration** (CI) is a development practice that requires developers to **integrate** code into a shared repository several times a day. Each check-in is then verified by an automated build, allowing teams to detect problems early.

Why use continuous integration

- Integrates all developers code
- Check everything works together
- Runs all tests every time

Tools for continuous integration

- Teamcity
- Bamboo
- Jenkins
- Azure DevOps (formerly known as VSTS)
- Etc. . . .


Management
We need this change live tonight.
We have a deployment to do tonight is that going to be OK?
I'll see what I can do.
Developer
Yep, that's fine, I'll be waiting, anything I can do to help?
DBA

Any questions????

References

- Code smells: https://www.red-gate.com/simple-talk/sql/t-sql-programming/sql-code-smells/
- Building a Team City environment: https://www.red-gate.com/simple-talk/blogs/installing-and-setting-up-teamcity/
- tSQLt: https://tsqlt.org/

How to contact me.

- Blog at https://www.red-gate.com/simple-talk/author/annette-allen/
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FRIDAY NIGHT, SQLBITS

PROHIBITION PARTY

FEEDBACK FORMS

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