CONTINUOUS DELIVERY

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"CONTINUOUS INTEGRATION IS A SOFTWARE DEVELOPMENT PRACTICE WHERE MEMBERS OF A TEAM INTEGRATE THEIR WORK FREQUENTLY, USUALLY EACH PERSON INTEGRATES AT LEAST DAILY." – MARTIN FOWLER

CI PRINCIPLES

> " ELIMINATE THE NEED FOR INSPECTION ON A MASS BASIS BY BUILDING QUALITY INTO THE PRODUCT IN THE FIRST PLACE.
> – W. EDWARDS DEMING "

MAINTAIN A SINGLE SOURCE REPOSITORY
AVOID HAVING SOURCE CODE BEING SCATTERED ACROSS MULTIPLE LOCATIONS
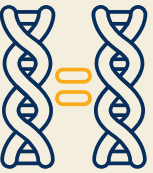
KEEP THE BUILD FAST – FAIL FAST
- BUILD SHOULD NOT TAKE HOURS TO HAPPEN
- HAVE SHORT FEEDBACK LOOPS

AUTOMATE THE BUILD
A SINGLE COMMAND SHOULD HAVE THE CAPABILITY OF BUILDING THE WHOLE SYSTEM

TEST IN A CLONE OF THE PRODUCTION ENVIRONMENT

MAKE YOUR BUILD SELF-TESTING
- CONFIRM THAT IT BEHAVES AS EXPECTED
- COMPUTER CAN REPLACE HOURS OF MANUAL TESTING WITH JUST MINUTES OF AUTOMATED TESTING

EVERYONE CAN SEE WHAT'S HAPPENING
- SEND NOTIFICATIONS
- FEEDBACK EVERYWHERE
- REDUCE FEEDBACK LOOP

EVERYONE COMMITS TO THE CENTRAL REPOSITORY EVERY DAY
- AS OFTEN AS POSSIBLE – MICRO INCREMENTS
- GUARANTEE THE SUCCESS OF THE INTEGRATION

MAKE IT EASY FOR ANYONE TO GET THE LATEST EXECUTABLE VERSION
- MAKE IT EASY FOR ANYONE TO GET THE LATEST EXECUTABLE VERSION
- AVAILABLE TO STAKEHOLDERS AND TESTERS

EVERY COMMIT SHOULD BUILD ON AN INTEGRATION MACHINE

> OUR HIGHEST PRIORITY IS TO SATISFY THE CUSTOMER THROUGH EARLY AND CONTINUOUS DELIVERY OF VALUABLE SOFTWARE "

AUTOMATE DEPLOYMENT
- REDUCE THE DEPLOYMENT RISKS
- DEPLOYMENT AS A NON-EVENT

CD PRINCIPLES

REPEATABLE & RELIABLE PROCESS
- GET THE LIST OF DEPLOYED FEATURES
- NOTHING CAN BE INTRODUCED THAT HAS NOT BEEN TESTED

IF SOMETHING IS DIFFICULT, DO IT MORE OFTEN

VERSION CONTROL EVERYTHING

DONE MEANS "RELEASED"

BUILD QUALITY IN

EVERYONE IS RESPONSIBLE

4 PRACTICES

BUILD ONCE, DEPLOY MANY
- EARLY AND OFTEN
- ARTEFACT IS ENVIRONMENT AGNOSTIC
- AUTOMATE EVERYTHING

SMOKE TEST YOUR DEPLOYMENT
- "DOES CLICKING THE MAIN BUTTON DO ANYTHING?"
- DETERMINE THE STATE OF THE SYSTEM

USE PRECISELY THE SAME MECHANISM
TO DEPLOY TO EVERY ENVIRONMENT

IF ANYTHING FAILS
STOP THE LINE