CI/CD Udacity

PROJECT: GIVE YOUR APPLICATION AUTO-DEPLOY SUPERPOWERS

OVERVIEW :

▸ WHAT DOES CI/CD STAND FOR? THE CONCEPTS EXPLAINED

▸ WHAT ARE OUR CURRENT PAIN POINTS?

▸ CI/CD TO THE RESCUE. HOW WE COULD BENEFIT FROM DEVOPS PRINCIPLES

▸ WHAT ARE THE CHALLENGES WE WILL BE CONFRONTED WITH?

WHAT DOES CI/CD STAND FOR? THE CONCEPTS EXPLAINED

▸ **PROBLEM STATEMENT:**

▸ MANUAL AND ERROR-PRONE RELEASE PROCESS AND POOR SOFTWARE QUALITY

▸ **SOLUTIONS:**

▸ IMPLEMENT CONTINUOUS INTEGRATION: AUTOMATE COMPILING, TESTING, CODE ANALYSIS AND ARTIFACT STORAGE

▸ AUTOMATE INFRASTRUCTURE CREATION

▸ **BENEFITS:**

▸ COST REDUCTION DUE TO LESS HUMAN ERRORS AND FASTER DEPLOYMENTS ▸ REDUCE COMPLEXITY AND SAFE MANUAL TROUBLESHOOTING TIME

CI/CD TO THE RESCUE. HOW WE COULD BENEFIT FROM DEVOPS PRINCIPLES

▶ **PROBLEM STATEMENT:**

▶ COMPLEX DEPLOYMENTS AND HANDCRAFTED AUTOMATION WHICH OFTEN FAIL. MISSING SMOKE TESTS AND ROLLBACK MECHANISMS.

▶ **SOLUTIONS:**

▶ AUTOMATE TODAY'S MANUAL DEPLOYMENT STEPS FOR SMOKE TESTS AND ROLLBACKS ▶ ADD AUTOMATED INFRASTRUCTURE PROVISIONING
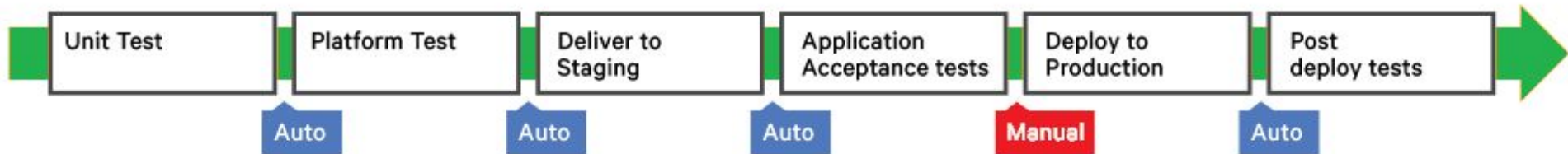
▶ **BENEFITS:**

▶ THE TRUTH LIES IN THE SOURCE CODE AND NOT IN THE HEADS OF ONE OR TWO EXPERTS. THIS MEANS THAT REGRESSIONS AND BREAKING CHANGES IN CODE AS WELL AS IN INFRASTRUCTURE DEPLOYMENTS CAN BE FOUND MUCH QUICKER AND CAN BE RESOLVED FOR THE WHOLE AUTOMATION PROCESS. AND AS A PLUS CHANGES ARE ALWAYS DOCUMENTED IN SOURCE CODE.
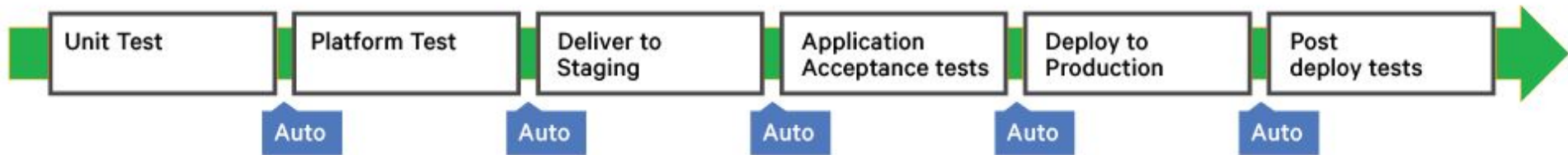
▶ AUTOMATED SMOKE TESTS AND ROLLBACKS WILL PROTECT PROJECT REVENUE DUE TO REDUCED DOWNTIMES FROM DEPLOY-RELATED CRASHES AND FAST AND AUTOMATED REBUILDING OF PRODUCTION READY STAT

ALL STEPS FOR CI/CD

Thanks