BOOTCAMP KRISA SIRI 3/2021:

PENGUJIAN SISTEM

28 – 30 JUN 2021 (ISNIN-RABU)

KRISA

PANDUAN KEJURUTERAAN
SISTEM APLIKASI SEKTOR AWAM

ALL CODE IS

GUILTY

UNTIL PROVEN INNOCENT

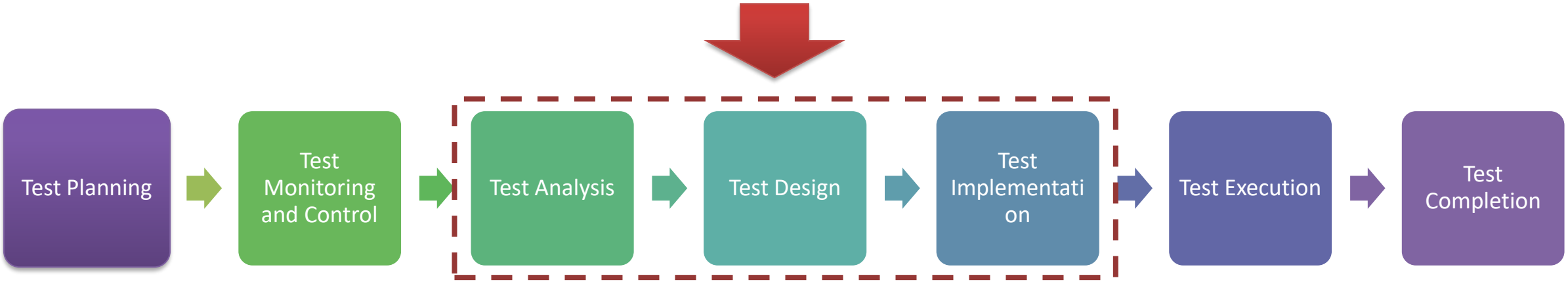
PENGENALAN: OBJEKTIF SILIBUS (TOPIK 5, TOPIK 6 DAN TOPIK 7)

As a result of the successful implementation of the Test Analysis, Design & Implementation Process:

- ✓ The **Test Basis** for each test item is analyzed;
- ✓ The features to be tested are combined into **Feature Sets**;
- ✓ The **Test Conditions** are derived;
- ✓ The **Test Coverage** items are derived;
- ✓ **Test Cases** are derived;
- ✓ **Test Sets** are assembled.
- ✓ **Test Procedures** are derived;

Rujukan:
ISO Standard (ISO/IEC/IEEE 29119-2) – Test process

PENGENALAN: TEST PROCESS



Rujukan:
ISTQB® Certified Tester Advanced Level Syllabus Test Analyst Version 2019

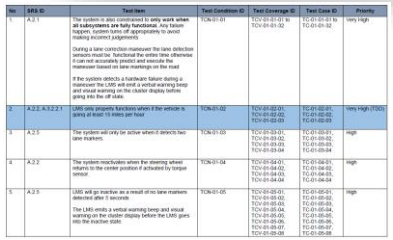
PENGENALAN: TEST PROCESS

Master Test Plan


LANE MANAGEMENT SYSTEM (LMS)

Master Test Plan

PROFESSIONAL INDEPENDENT TESTING TEAM
CANARY
September 2019



Traceability Matrix

Test Analysis

TEST BASIS

- System Requirement Specification (SRS
- System Design Specification (SDS)
- Application
- User Manual
- Source Code
- etc

Test Design

TEST DESIGN SPECIFICATION

- Define most appropriate Test Techniques
- Define TCN and prioritize
- Traceable to SRS

TEST CASE SPECIFICATION

- Define Test Case and prioritize
- Define Test Coverage and Prioritize
- Traceable to TDS

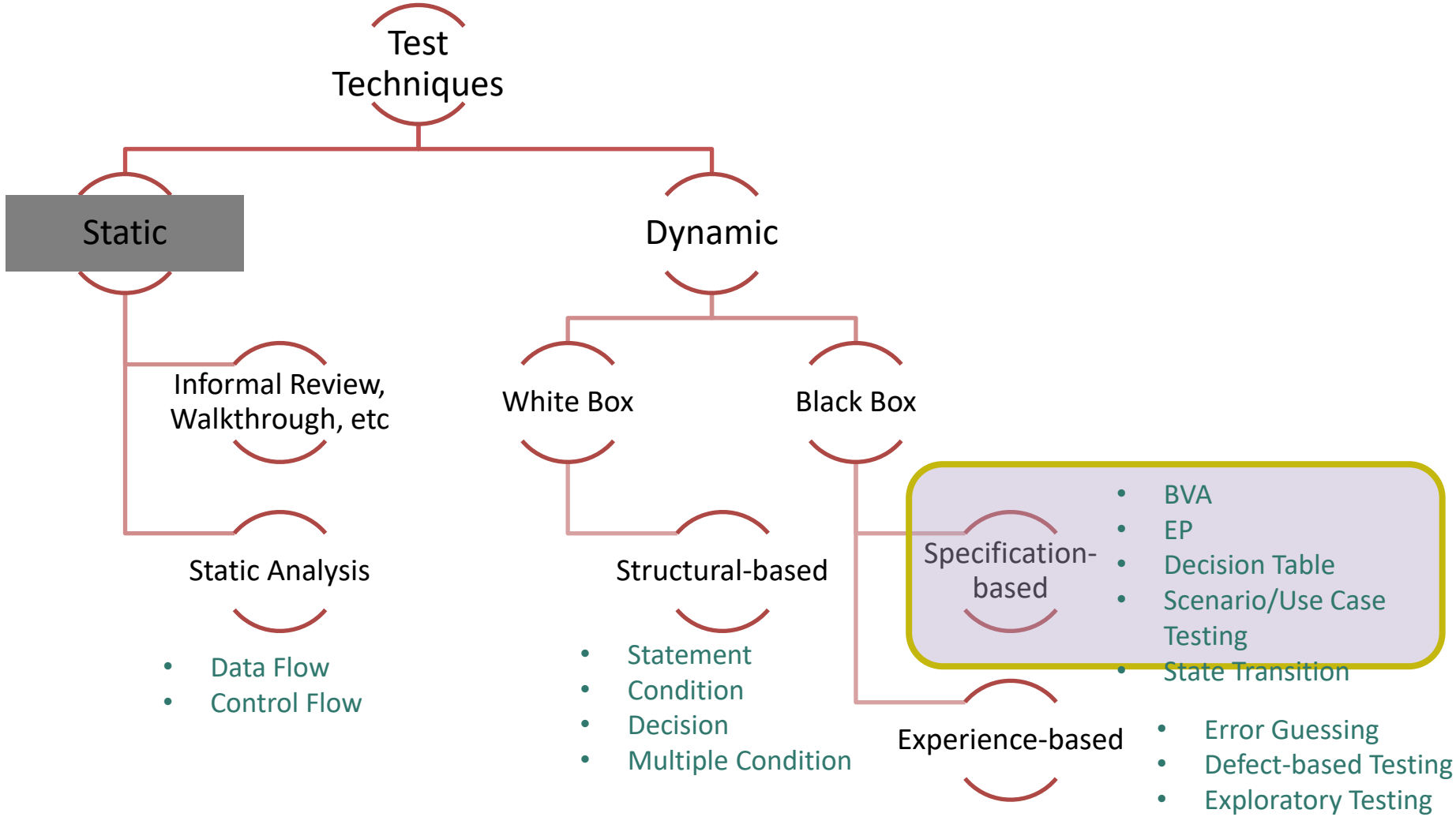
Test Implementation

TEST PROCEDURE

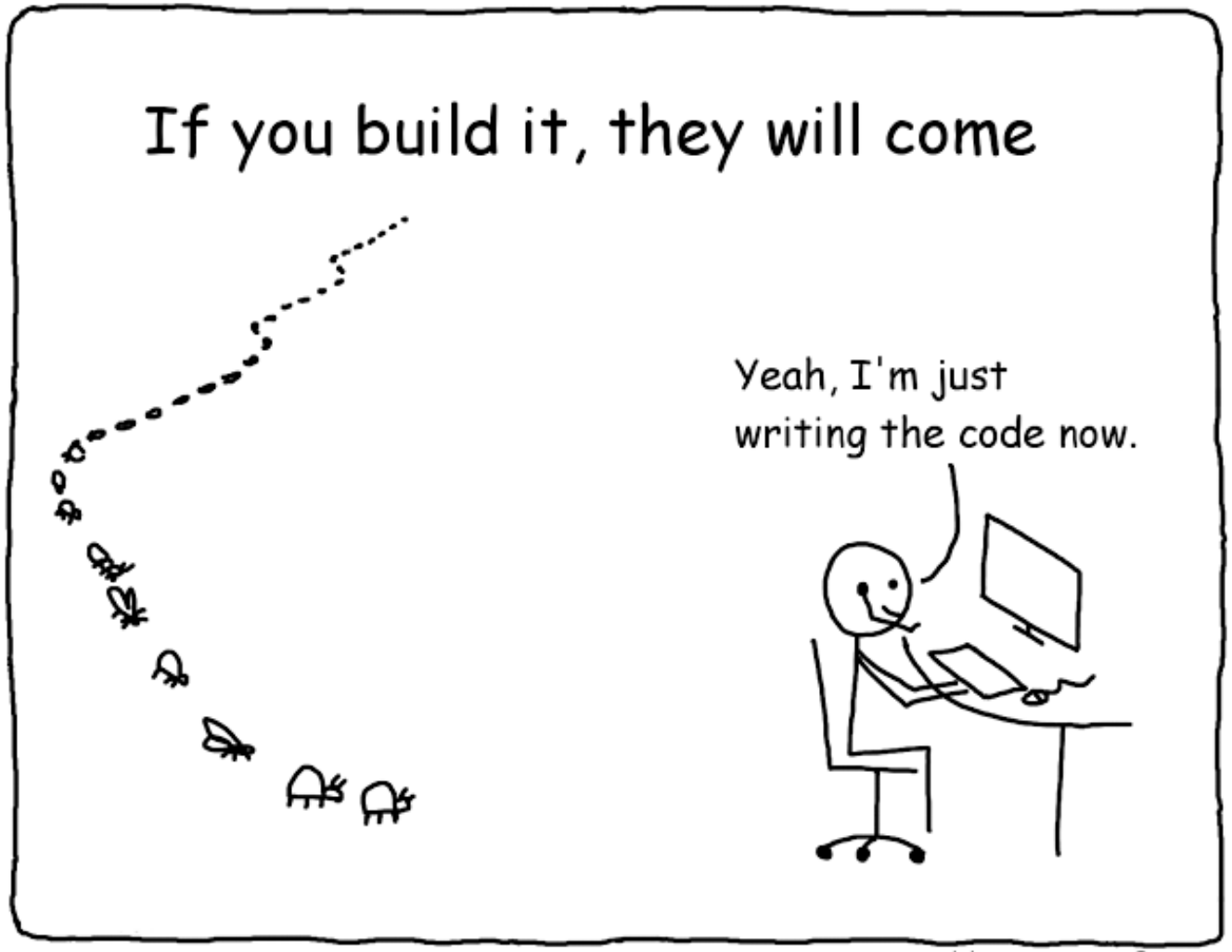
- Risk
- Business Scenario
- Manual or automated test

Rujukan:
Pembentangan Pusingan Akhir Test Design Competition 2019

PENGENALAN: SKOP



Rujukan:
ISTQB® Certified Tester Foundation Level Syllabus Version 2018 V3.1


If you build it, they will come
Yeah, I'm just writing the code now.
cartoontester.blogspot.com © 2013

PENGUJIAN SISTEM: SPESIFIKASI REKABENTUK UJIAN (KRISA)

TAKLIMAT

05

GLOSSARY

Test Basis

Body of knowledge used as the basis **for the design of tests and test cases**

Feature Set

collection of items which **contain the test conditions of the test item to be tested** which can be collected from **risks, requirements, functions, models**, etc.

Test Condition

Testable aspect of a component or system, such as a **function, transaction, feature, quality attribute**, or **structural** element identified as a basis for testing

Rujukan:
ISO Standard (ISO/IEC/IEEE 29119-1) – Concepts and definitions

GLOSSARY

Test Design Techniques

Activities, concepts, processes, and patterns used to construct a test model that is used to identify test conditions for a test item, derive corresponding test coverage items, and subsequently derive or select test cases

Test Design Specification

Document specifying the features to be tested and their corresponding test conditions

Rujukan:
ISO Standard (ISO/IEC/IEEE 29119-1) – Concepts and definitions

OBJEKTIF: PENYEDIAAN SPESIFIKASI REKABENTUK UJIAN

- The **Test Basis** for each test item is analyzed;
- The features to be tested are combined into **Feature Sets**;
- The **Test Conditions** are derived;
- The **Test Coverage** items are derived;
- **Test Cases** are derived;
- **Test Sets** are assembled.
- **Test Procedures** are derived

TOPIK YANG DIAJAR

- Pengenalan Dokumen
- Langkah-langkah
- Keterangan Dokumen
- Contoh Pengisian

PENGENALAN SPESIFIKASI REKABENTUK UJIAN

SPESIFIKASI REKABENTUK UJIAN

- The **Test Design Specification** identifies **the features to be tested**, and **the test conditions derived from the test basis for each of the features** as the first step towards the definition of test cases and test procedures to be executed

- This section also focusing on applying the best approach (**Test Design techniques**) in finding most of the defects in the system.

LANGKAH-LANGKAH

1. Analyse the **test basis**
2. **Identify defects of various types** in the test basis
3. **Identify and prioritize test conditions** and **features to be tested**
4. Capture bi-directional **traceability between each element of the test basis and the associated test conditions**

1. Senaraikan dan kategorikan **maklumat test condition** bagi memudahkan rujukan semasa penyediaan spesifikasi kes ujian dan penyediaan skrip ujian.

2. Semua keperluan yang dinyatakan dalam SRS hendaklan diuji, selaraskan supaya tidak berlaku pertindanan.

3. Merujuk kepada dokumen **BRS, SRS, SDS, pemilik projek atau pasukan projek** bagi mengesahkan maklumat. Memastikan versi yang betul bagi dokumen rujukan.

4. Pastikan **Traceability Matrix** juga dikemaskini.

KETERANGAN DOKUMEN

ID Ujian	Berdasarkan Feature Set yang dikenalpasti, cth ID berdasarkan Modul
ID Test Condition	Nombor unik bagi test condition
Keterangan	Keterangan mengenaik test condition
Objektif	Objektif pelaksanaan test condition
Tahap Keutamaan	Keutamaan test condition merujuk kepada risiko, *historical fact*
Teknik Rekabentuk Ujian	Teknik pengujian yang berkesan untuk mendapatkan ralat
Rujukan SRS	Rujukan SRS

KETERANGAN DOKUMEN

ID Ujian	LMS.02
ID *Test Condition*	TCN.02.01
Keterangan	LMS is active, LCS is active when the car speed exceed 30 kmph (kilometre per hour)
Objektif	To ensure the LMS properly functions when the vehicle is going at least 30 kilometre per hour
Tahap Keutamaan	High (due to localization)
Teknik Rekabentuk Ujian	Equivalence Partitioning Boundary Value Analysis
Rujukan SRS	A.2.2, A.3.2.2.1

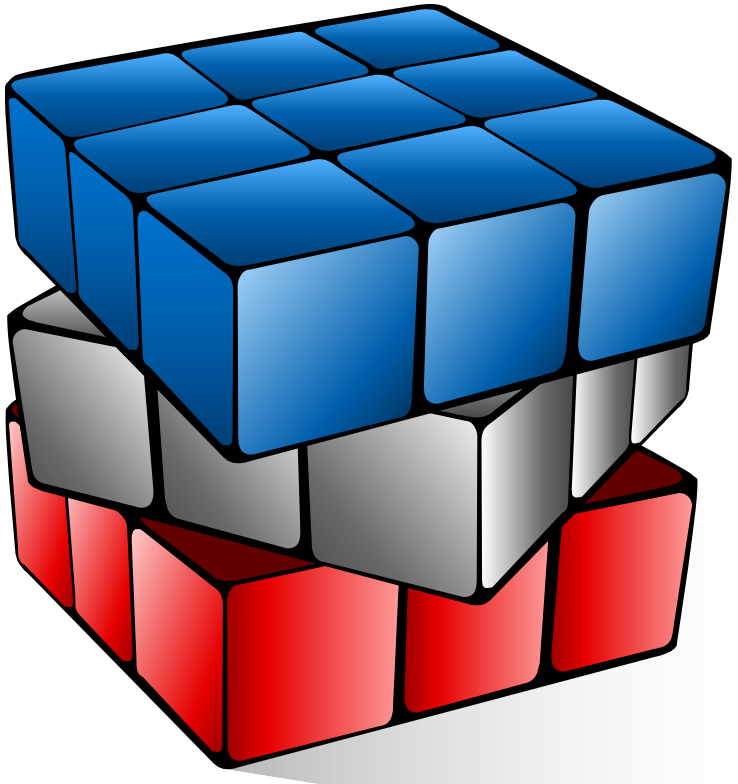
CONTOH

ID Modul	TM02
ID Test Condition	TCN.M02.01
Keterangan	Sub Modul Penetapan Pengguna
Objektif	• Memastikan pengguna yang mempunyai akses kepada submodul ini adalah pengguna yang betul berdasarkan prinsip *authentication* and *authorization* • Memastikan Pentadbir Sistem dapat melaksanakana aktiviti pentadbiran berkaitan pengguna seperti pendaftaran pengguna sistem, reset kata laluan pengguna dan tetapan peranan pengguna. Pengguna berdaftar dapat mengakses sistem berdasarkan peranan yang ditetapkan • Aktor: Pentadbir Sistem/Urus Setia JK4P
Tahap Keutamaan	**High**
Teknik Rekabentuk Ujian	Use Case Testing
Rujukan ID SRS	2.3.3, 3.2.4 (use case ID)

SPESIFIKASI REKABENTUK UJIAN

SISTEM DASHBOARD MUDAHCARA DAN INTERVENSI PROJEK NASIONAL (MyMInD)

Spesifikasi Rekabentuk Ujian



KAJIAN KES

Bugs.. If you don't kill them.. They'll kill you!

Unit Pemodenan Tadbiran dan Perancangan Pengurusan Malaysia

TERIMA KASIH