
CABARAN REKABENTUK PENGUJIAN PERISIAN SEKTOR AWAM 2020 (CeKaP 2020)

Reference Document

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DOCUMENT CONTROL

This document is the CeKaP 2020 Reference Document and it contains information crucial for participation in the CekaP 2020. This includes background information, competition requirements and Terms and Conditions.

This document is customised to each intended recipient who is registered participants of the CeKaP 2020, organized by PERJASA and MyTCoE, MAMPU.

This Document comes with four (4) attachments:

Appendix 1: CeKaP 2020 About Organizer

Appendix 2: CeKaP 2020 Guidelines for Participants

Appendix 3: Project on Inventory Control System (PICS) System Requirement Specification

Appendix 3a: Additional Non-Functional Requirement

Appendix 4: Templates

- i. Appendix 4a - Master Test Plan
- ii. Appendix 4b - Traceability Matrix
- iii. Appendix 4c - Test Architecture Design, Test Design Specification, Test Case Specification and Test Procedure

About *Cabaran Rekabentuk Pengujian Perisian Sektor Awam 2020 (CeKaP)*

Via the competition, we provide opportunities and exposure to Public Sectors Officers in implementing software testing methods by using proper testing techniques and best practices besides to give due recognition to testing skills excellence of software test professionals/practitioner.

The Judging Criteria are based on several elements including effectiveness, efficiency and the creativity of test solutions submitted. *Prize-giving ceremony for the competition will be held by PERJASA on 16th Feb 2021.

** The organizer reserves the right to cancel, postpone or change the venue, date and time of the course should unforeseen circumstances occur.*

Important Dates:

No	Description	Date
1.	Hebahan Pertandingan dan Pendaftaran	Bermula Isnin, 23 Nov – 10 Dis 2020
2.	Tarikh Tutup Penyertaan Mentee	Jumaat, 11 Dis 2020 (5ptg)
3.	Edaran Dokumen Rujukan CeKaP 2020	Isnin, 23 Nov 2020
4.	3x Sesi Q&A bersama Mentor dan Mentee	Setiap Khamis, 26 Nov, 3 dan 10 Dis 2020 (Slot bagi sesi Q&A akan diwar-warkan menerusi saluran rasmi PERJASA)
5.	Tarikh Serahan Dokumen dan Bahan Pembentangan menerusi emel cekap@perjasa.org.my	Ahad, 31 Jan 2021 (5ptg)
6.	Pembentangan kepada Juri Pertandingan	Selasa, 9 Feb 2021 (Slot pembentangan akan dimaklumkan menerusi emel peserta)
7.	Pengumuman pemenang dan penyampaian hadiah	Selasa, 16 Feb 2021

Glossary

PERJASA	Persatuan Juruanalisa Sistem Sektor Awam
MyTCoE	Pusat Kecemerlangan Pengujian Perisian Sektor Awam
CeKaP 2020	Cabaran Rekabentuk Pengujian Perisian Sektor Awam 2020
CeKaP Organizer	PERJASA and MyTCoE, MAMPU
SOFTEC	Software Testing Conference
TDC	Test Design Competition
PICS	Project on Inventory Control System

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1. The Challenge

The (Hypothetical) Real-world Test Environment:

Rundle Bistro Bar has identified new market place in Kuala Lumpur, Malaysia to launch their new Islamic Compliance Bistro Bar make their total number of branches to 10,000 world-wide. As part of their Software Quality Assurance practices, Association of Software Test Engineering (ASTER) of Australia has been appointed as a third party to ensure SQA aspects including software testing in Inventory Control System based on set of specifications developed by ASTER and PICS Team (**as per Appendix 3: PICS System Requirement Specification and Appendix 3a: Additional Non-Functional Requirements**).

Within ASTER, the ASTER Testing Unit (ATU) is tasked to ensure the Inventory Control System is working as intended and ready for deployment. Tests will need to focus on particular areas such as:

- functionalities and localization (for deployment in Malaysia),
- non-functionalities, etc.

Due to the lack of time and resources, ATU has **decided to outsource to Malaysian-based Professional Independent Testing Team (PITT) to perform the tests** on its behalf.

The PITT is reminded that due to Pandemic Covid-19 outbreak world-wide, **time to deploy the system is of essence, budget for testing is fixed and return on investment (RoI) is required to be highlighted and calculated. Innovation on test architecture, test design and test approach optimization will definitely give the PITT additional advantage.**

2. The Test Object

The Inventory Control System, owned by Rundle Bistro Bar is a new system to be introduced in order to manage stock including stock information, ordering stock and review the stock for the business operated in Rundle Bistro Bar world-wide. All efforts in inventory control boil down to better visibility and lower costs.

(Please refer to Appendix 3: PICS System Requirement Specification and Appendix 3a: Additional Non-Functional Requirement for details of the test object)

3. The Test Requirement

You, as one of the interested PITT to undertake this test challenge, is required to develop and present your testing solution to ASTER'S panel of judges (consisting of management personnel, ATU personnel and other experts). Your team must convince the judges by submitting the requested documents (Le. the 4 major deliverables as described in Judging Criteria section).

If your team's submission is shortlisted after an internal screening, your team will proceed to the final evaluation (to convince a panel of Decision Makers) and one step closer to be the winner of this challenge.

4. The Mechanics

- CeKaP Organizer will provide official CeKaP 2020 participants with the CeKaP 2020 Reference Document describing the Test Object, a (hypothetical) Real-world Test Environment, and all other relevant information. Only one (1) copy of this document will be provided for each Group participants.
- The CeKaP 2020 Reference Document will be released to the participants via official PERJASA page
- Payment of the appropriate Registration Fee must be done via TNG eWallet or PERJASA Account;

Payment of Registration Fee:

Deposit/Online Transfer

Bank name: **CIMB Bank**

Account name: **PERJASA**

Account number: **8600304469**

Reference: **CeKaP 2020 <individual/team name>**

Please email a copy of Deposit Slip/Online Receipt to
bendahari@perjasa.org.my

- Complete registration and full payment should be made between 23th Nov 2020 until 11th Dec 2020 to eligible as a CeKaP 2020 participant
- Eligible participants are required to develop an original Test Architecture, Test Design and the other major deliverables for the Test Object and (Hypothetical) Real-world Test Environment, based on certain methodology/approach such as the ISTQB Fundamental Test Process (FTP) and ISO/IEEC Documents. Participants are encouraged to introduce their own methodology or innovate based on existing methodologies
- Participants are required to produce and submit (in PDF format) four (4) major deliverables:
 - ✓ Test Architecture Design (TAD);
 - ✓ Test Design Specification (TDS);
 - ✓ Test Case Specification document/list of test cases (i.e. test detail design document); and
 - ✓ Test Procedure (i.e. test implementation document)
- Judging will be conducted in two (2) stages:

✓ **Initial**

Participants will be scored based on the submission of the four (4) deliverables. Short-listed participants will proceed to the Final round.

✓ **Final**

Finalists are allowed to revise/improve their submissions. Participants will be required to present their case to the Panel of Judges, (assuming the role of stakeholders). This presentation will be held to select the winners.

- Submission of artefacts (i.e. the four (4) major deliverables) are to be made via email: cekap@perjasa.org.gov.my

5. Terms and Conditions

- The competition is open to all in Public Sectors except for the winning group of TDC;
- Decisions by the Panel of Judges shall be final and shall not be disputed;
- The final judging scores will not be disclosed to the participants;
- Submissions of participants must be works originating in Malaysia;
- Submission of participants is allowed in Malay/English language;
- Submission of all deliverables shall be made in PDF format;
- CeKaP Organizer reserves the right to keep, publish, share and/or distribute submitted deliverables to Panel of Judges and/or any other parties it deems fit;
- Expenses that may be incurred by participants for the purpose of their participation, including attending final presentations are to be borne by participants
- CeKaP Organizer shall not be liable for any kind of loss, including loss in property, money, equipment, time and/or any other resources, experienced by participants due to their participation in CeKaP 2020;
- CeKaP Organizer reserves the rights to deny participation and disqualify participants, at any stage of the competition, for non-compliance and/or violation of any of the Terms and Conditions; and
- By participating in this CeKaP 2020, all participants shall be deemed to have agreed with all the CeKaP 2020 Terms and Conditions.

6. Judging Criteria

Submission shall be subjected to, at the MINIMUM, the following set of evaluation criteria:

Test Architecture Design (30 points)

- Ability to grasp and come up with the big picture of model
- Quality of the model, test types and test level
- Comprehensiveness of test conditions and test possibilities
- Display consideration of risks, Return on Investment (RoI), priorities and/or
- balance
- Knowledge of the software, and the business area it operates on
- Suitability of the scope of test

Test Design Specification (20-30 points)

- Coverage of requirements and maintain the scope of test
- Ability to apply the best approach finding most of the defects in a system
- Knowledge of the features being tested
- Knowledge of testing techniques and heuristics
- Relevant with the test architecture and current technology
- Innovative and Problem solving

Test Case Specification (20 points)

- Completeness of test cases on specific test conditions
- Prioritisation of test cases
- Test case management consistency in structure
- Relevant with the test design

Test Procedure (test scripts) (15-20 points)

- Steps are reproducible and properly prioritised
- Logical and represents described test scenarios
- Relevant with test cases

7. Additional Judging Considerations (Bonus Point)

Traceability (10 points)

- Traceability in test design
- Traceability between documents (test deliverables)
- Adequacy and balanced documentations

Test Implementation (10 points)

- Level of understanding and/or innovativeness of methodology or techniques used
- Quality of finding defects of test basis
- Considers international templates/techniques/methodology/standards
- Accuracy and consistency

Documentation (10 points)

- Comprehensible and organized with reasonability of description
- Abide to specified documentation guidelines (e.g. formatting, spacing, etc)
- Explicitness of relationships among documents (test deliverables)
- Maintainability of documents

Presentation (15 points)

- Engaging and easily understood by judges
- Include relevant presentation materials
- Smart; convincing, ethical and professional
- Showcase of a great teamwork/confidence

Novelty/Innovation (Bonus: up to 20 points)

- Novel or innovation test approach
- Novel or innovation test design technique
- Proven optimal Return on Investment (RoI)

Disclaimer: The judging criteria may not be limited as listed as above. The judging criteria may be changed from time to time without prior notice.

8. APPENDIX 1: CeKaP 2020 About Organizer

Persatuan Juruanalisa Sistem Sektor Awam (PERJASA)

PERJASA telah ditubuhkan pada 20 Oktober 1985 melalui Mesyuarat Agung Kali Pertama telah diadakan di INTAN, Jalan Ilmu. Seramai 76 orang Juruanalisa Sistem (JAS) telah hadir dalam Mesyuarat Agung Kali Pertama tersebut. YM Raja Malek Raja Mohamed telah dipilih sebagai Presiden PERJASA yang pertama.

PERJASA telah diterima pendaftaran sebagai sebuah pertubuhan pada tahun 1986. Nama persatuan telah di tukar daripada Persatuan Juruanalisa Sistem Sektor Awam, Kuala Lumpur (PERJASA) kepada Persatuan Juruanalisa Sistem Sektor Awam, Malaysia (PERJASA) pada 29 Dis 1994.

Sehingga kini, terdapat lebih kurang 2,267 orang Pegawai Teknologi Maklumat (PTM) di dalam Sektor Awam dan hampir 80% daripadanya merupakan ahli PERJASA berdaftar.

PTM baharu boleh mendaftar dan menyemak pendaftaran melalui aplikasi web Ahli Perjasa > <https://ahli.perjasa.org.my>

PERJASA telah diiktiraf sebagai Persatuan Ikhtisas oleh Ketua Pengarah Pekhidmatan Awam (KPPA) pada 30 Mei 2014.

Pusat Kecemerlangan Pengujian Perisian Sektor Awam atau MyTCoE

MyTCoE adalah Pusat Kecemerlangan Pengujian Perisian Sektor Awam yang memberi tumpuan kepada perkhidmatan Pengujian Perisian dan Jaminan Kualiti Perisian (SQA) Sektor Awam bagi memastikan perisian/produk yang dibangunkan dan proses penghasilan perisian/produk mematuhi standard dan amalan terbaik serta menepati keperluan pengguna pada setiap fasa pembangunan sistem.

Penganjuran CeKaP 2020 merupakan kerjasama antara MAMPU menerusi MyTCoE dengan Biro Ekonomi PERJASA bertujuan untuk:

- memberi peluang dan **pendedahan kepada Pegawai Teknologi Maklumat Sektor Awam dalam melaksanakan kaedah pengujian perisian** melalui teknik pengujian yang betul dan amalan terbaik pengujian;*
- menjadi **platform bagi Pegawai Teknologi Maklumat Sektor Awam mempraktikkan pengetahuan yang dipelajari daripada pensijilan** berkaitan pengujian perisian seperti Certified Tester Foundation Level (CTFL); dan*

- mengeratkan ***perhubungan serta mempertingkatkan kemahiran ICT*** ahli-ahli persatuan;

Into the Future ...

We have a plan to take the CeKaP further. This event will become an annual event for PERJASA and MAMPU to gear up the software testing skills among the *Pegawai Teknologi Maklumat Sektor Awam*. For a start, CeKap 2020 champions will get a chance to pit their skills and creativity against Professional Testers regardless of Private or Public Sector in the next coming TDC 2021.

9. APPENDIX 2: CeKaP 2020 Guidelines for Participants

The guidelines stated in this document are intended for participants of the Cabaran Rekabentuk Pengujian Perisian Sektor Awam 2020 (CeKaP 2020) for the Final on 9th Feb 2021.

A. Final Presentation (On-Site/VC)

- Each team/participant will have a total of 40 minutes (**20 min presentation + 20 min minutes Q&A**);
- Presentation slot for each team/participants is pre-allocated and not changeable
- The presentation room will be provided with (on-site):
 - ✓ A notebook PC (running Windows 10 and MS Office 2016)
 - ✓ LCD projector
 - ✓ Whiteboard/flipchart
- Slide presentation shall be done using the provided notebook and projector (on-site)
- Registration (on-site):
 - ✓ Please arrive at the venue at least 30 minutes prior to your scheduled presentation;
 - ✓ Items required during on-site registration:
 - A softcopy of presentation (in a thumb drive)
 - One (1) copy of printout of the presentation
- Registration (VC):
 - ✓ Url will be provided by the organizer at least 15 minutes prior to your scheduled presentation;
 - ✓ Items required during on-site registration:
 - A softcopy of presentation
- Dress code (on-site/VC):
 - ✓ Smart Casual attire, e.g. long pants, shirt & shoes
- Presentation Session:

Cabaran Rekabentuk Pengujian Perisian Sektor Awam 2020 (CeKaP) Reference Document

- ✓ Only registered participants and group members are allowed to be in their respective presentation session
- The presentations will be held at venue and time as below:

Competition Round	Venue	Date	Note
Final	To be determined	9th Feb 2021	Presentation time slot to be informed to participants by 3th Feb 2021

Note: CeKaP Organizer will finalize qualified participants and presentation time slot for the different competition round accordingly. Participants will be duly informed.

Note: All other Terms and Conditions of CeKaP 2020 not mentioned in this document remain applicable.

Failure to comply with any of the above items may result in the participants disallowed from making the presentation and/or demerit points being imposed on the participants.

10.APPENDIX 3: PICS System Requirement Specification

11.APPENDIX 3a: Additional Non-Functional Requirements

12. APPENDIX 4: Templates

- Appendix 4a - Master Test Plan
- Appendix 4b - Traceability Matrix
- Appendix 4c - Test Architecture Design, Test Design Specification, Test Case Specification and Test Procedure