

RINGKASAN

RANCANG BANGUN SISTEM INFORMASI PRESENSI BERBASIS RFID YANG TERINTEGRASI DENGAN DATABASE BERBASIS WEB DI FAKULTAS TEKNIK UNSOED

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Coronavirus atau biasa dikenal dengan virus Covid-19 merupakan virus berbahaya dan sangat menular. Berdasarkan data dari World Meter tanggal 11 Januari 2022 untuk Covid 19 Terdapat 44,907,560 kasus virus Covid-19 aktif di seluruh dunia. Mengingat masih tingginya kasus virus Covid-19, maka diperlukan upaya untuk mencegah penyebaran virus Covid-19.

Selain menerapkan perilaku hidup sehat, upaya pencegahan penyebaran virus Covid-19 juga dapat dilakukan dengan menciptakan inovasi teknologi. Salah satu inovasi teknologi tersebut adalah pemanfaatan sistem informasi pada sistem presensi dan pengukuran suhu tubuh berbasis *Website* dengan PHP program dan *database MySQL* sebagai media pemantauan data, media perekaman data. PHP program ini berfungsi untuk merespon masukan data dari alat RFID dan masukan dari sensor suhu serta juga menjalankan perintah dan memberikan data sesuai dengan permintaan *admin*.

Website yang telah dibuat kemudian diuji dengan menggunakan *Black Box testing* berbasis *equivalence partitions*. Dari hasil pengujian, *Website*, semua fungsionalitas dari *website* berjalan sesuai dengan harapan dari diujikan dengan data benar dan data salah. Pengujian fungsi *query* CRUD utama mampu berjalan 100% sesuai dengan harapan sebanyak 30 dari 30 kali pengujian. Dari 30 kali pengujian *response time*, PHP program memiliki total rata – rata *response time* keseluruhan sebesar 0,07 detik dimana *response time* tersebut termasuk ke dalam kategori cepat yaitu dalam interval 0 hingga 1 detik.

Kata kunci : Covid-19, *Website*, PHP, MySQL, CRUD, *Black Box testing*, *response time*

SUMMARY

DESIGN AND DEVELOPMENT OF RFID-BASED PRESENCE INFORMATION SYSTEM INTEGRATED WITH WEB-BASED DATABASE IN THE FACULTY OF ENGINEERING UNSOED

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Coronavirus or commonly known as the Covid-19 virus is a dangerous and highly contagious virus. Based on data from World Meter dated January 11, 2022 for Covid 19, there are 44,907,560 active cases of the Covid-19 virus worldwide. Given the high number of cases of the Covid-19 virus, efforts are needed to prevent the spread of the Covid-19 virus.

In addition to implementing healthy lifestyles, efforts to prevent the spread of the Covid-19 virus can also be carried out by creating technological innovations. One of these technological innovations is the use of an information system on a website-based attendance and body temperature measurement system with PHP programs and a MySQL database as data monitoring media, data recording media. This PHP program functions to respond to input data from RFID devices and input from temperature sensors as well as executing commands and providing data according to admin requests.

The website that has been created is then tested using Black Box testing based on equivalence partitions. From the test results, Website, all functionality of the website runs according to expectations from being tested with correct data and incorrect data. Testing of the main CRUD query function is able to run 100% according to expectations as much as 30 out of 30 times of testing. From 30 response time tests, the PHP program has a total average response time of 0.07 seconds where the response time is included in the fast category, which is in the interval of 0 to 1 second.

Keywords: Covid-19, Website, PHP, MySQL, CRUD, Black Box testing, response time