Universidad de las Fuerzas Armadas Espe
object oriented programming

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University Restaurant Capacity Control System

Problem: We need a system to control the taking of shifts and the maximum and minimum capacity of students who must comply with the new biosecurity protocols to which the university restaurant must adjust due to the current health emergency situation. For the development of this program we need to have knowledge of the availability of the restaurant infrastructure, facilitating the management of the restaurant staff.

Overview: In the commercial domain, business lessees can offer a product/service in accordance with the rules of the university campus. Tenants spend a considerable amount of time establishing patterns of behavior among students. With this knowledge, it is very possible to establish automated control of capacity, stock and time of stay.

Background: The control of people and stock has become a necessary requirement to start the process of economic reactivation since it is the only guarantee for businesses to safeguard the health of their customers. The time of suspension of economic activities reflected a great amount of losses due to the fact that universities were not suitable for a pandemic emergency while the large economies around the world reopen the legions of small businesses that help define and maintain the economy are in trouble, they live in a constant struggle for survival, the UN estimates that businesses with less than 250 workers are very likely to go bankrupt and do not adapt to the new normality.

It is clear that reopening alone is the beginning of a crucial struggle for recovery, it is necessary to find an effective and efficient way to meet health requirements, currently any business that keeps 30% of its capacity outdoors is prone to fines and closures.

According to data from the superintendency of companies in this time of health emergency, 281 new businesses were registered in the country, which reflects the increased level of competitiveness among small businesses. Innovation in an automated control system is necessary to maintain income and the level of consumers needed to maintain stability in the face of an economic crisis.

Analyst Comparison: In 2020, 24.6% of the businesses closed stated the pandemic as the main cause, while another 23% indicated a break due to the effect on sales, where, apart from a massive closing of businesses, there are enterprises that remain stable and which have one factor in common: innovation and the reinvention of a new market with technological tools.