

## EVOLUTIVE ALGORITHMS FOR QUEUE MANAGEMENT



Companies need to arrange events and assign resources in queues so that the customers are attended in a proper and effective way.

Finding the best assignation of resources through evolutive algorithms will boost the quality of service and enable new business insights.

## Service Description

Q-bot is a resource allocation product which uses evolutionary methodologies in order to find a solution in fast and feasible way. Since Q-bot relies in evolutive algorithms, the optimization objective is highly flexible and designed according to meet the business goals.

## Benefits of the solution

- > Automate and make faster the resource allocation.
- > Optimize the waiting time on queues.
- > Adapt, in a dynamic way, the waiting times at the rhythm of your business.
- > Flexible solution which can fit the business requirements.
- > Embedded in an analytical architecture to provide insights and valuable information of the processes.



### Allocate resources in an autonomously way

- > Find the best assignations of customers in queues given limited resources.
- > Increase the quality of service as the waiting time in processes decrease.
- > Improve the resources usage along the time.



### Get analytical insights of processes and resources

- > Analyze the data of resources and customers.
- > Take business decisions according to the data.
- > Feedback to decision makers about the resource allocation effectiveness.



### Adaptable to fit business rules

- > Identify the rules and needs of the business to design the optimization objective.
- > Adjust the optimization criteria dynamically and spatially according to business goals.



Q-Bot is an engine and an interface:  
Azure API and Power BI Front-End

## How it works



Connect to database or design the input system

- > Multiple ways of input system.
- > Adaptable to existing systems.
- > If necessary, input through web interface.



Engine on cloud

- > Resource allocation takes place on cloud, giving a highly available and reliable engine.



User interface

- > Processing power is adaptable to the data size and change on demand.
- > Q-Bot results can be obtained in a Power-BI interface.
- > Get analytical insights and resource allocation results through a friendly front-end.
- > Interpret results in the fastest and clearest possible way.

Q-Bot: evolutionary algorithms for time saving

### > Our promise to you

We distribute resources in a efficient way to decrease waiting time and increase service throughput.

### > An offer to get you started

Improve quality of service decreasing waiting times.



## Q-Bot

Process data

Cloud Engine

User Interface

Web Interface

Azure API

Power BI

### What you can expect?

Increase of quality of service through reduction of the waiting time of customers.

Analytics insight valuable for decision driven process.

Improvement of resource usage and increase of service throughput.

### Why IDATA?

IDATA is a company specialized in making solutions from the advanced analysis on data. Our scope is the predictive modelling for solving strategic questions for business in real time. Our solutions include consultancy and totally automated products that help companies of any sector to monetize their databases on predictive methodologies. Our first level data-scientists team support the flexibility, scalability, and effectivity of our solutions.