



# CMM: Crowd Movement Management

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## INTRODUCTION

Collecting a real dataset is a hard task as it takes a significant amount of time and effort. Unfortunately, the cost of acquiring such datasets is very high. For example: the GeoLife, project lead by Microsoft Research spent three years to get the track movement from 182 users. Alternatively, we prepared a simple ASCII-based visualization for more advanced one that is able to prepare with agents marked.

So in our project Crowd Movement Management (CMM). We will introduce a site that simulates virtual crowds by taking the user specified region either Al-Haram in Makkah or Al-Haram in Al-Madinah or just Al-Kaaba region and generate crowd data in one of this region. So researchers and field experts will not need to spend their time to generating this crowd by a complicated tools to the normal user. Instead, they will focus on their main research.

## OBJECTIVES

- problems of human clusters at critical crowds points such as Hajj.
- provide data and simulate virtual crowds by provide an easy-to-use web interface.
- It will help the researchers, field experts and authorities responsible for crowd control in their major research and analysis.

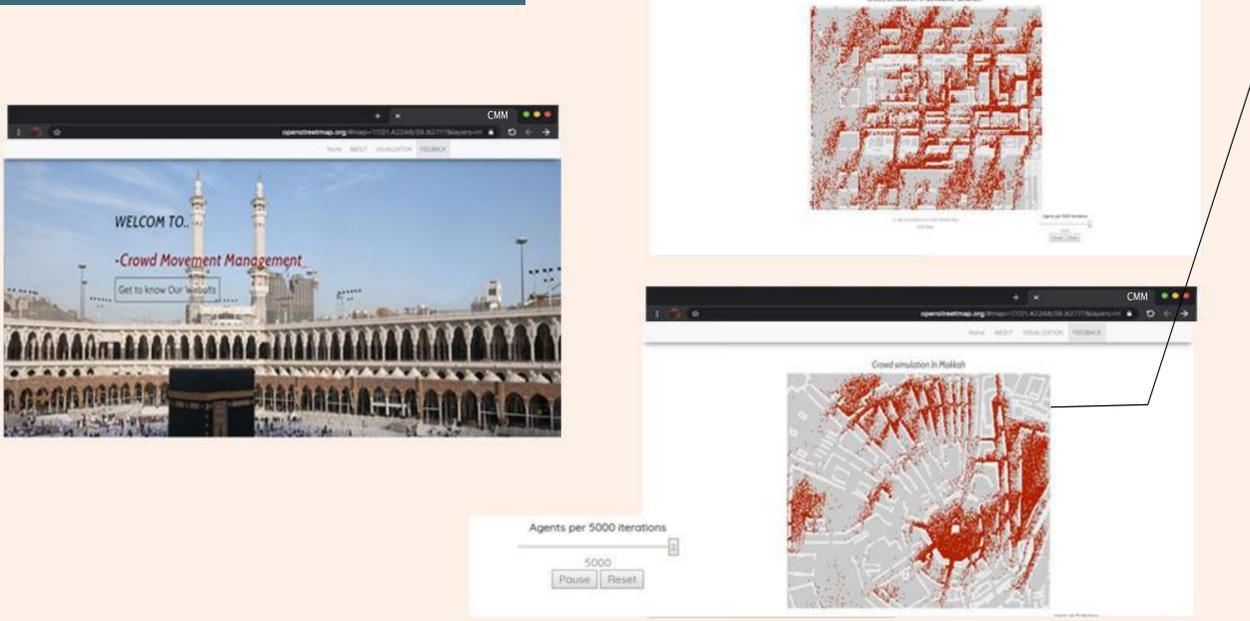
## METHODOLOGY

In this project, we are going to use a Scrum - is one of the agile methodologies that is an approach to software development process, it is going to be divided into numbers of sprints (weeks), starts by planning and ends with delivery of a new version of the system and testing when the specified time expires.

## TOOLS

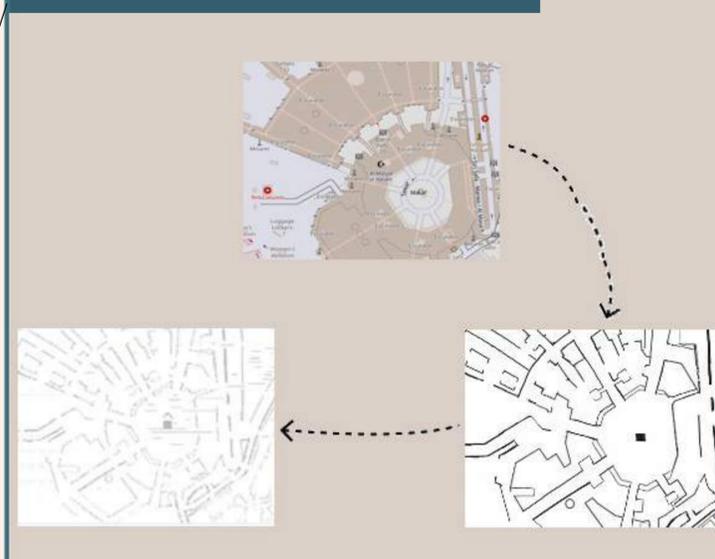


## RESULTS



This site is to simulate crowds within the Great Mosque of Mecca and the number will be according to the user's choice through a tape to control the density where the number of crowds increases or decreases based on the user moving the tape.

## Image processing



## CONCLUSION

Our system Crowd Movement Management (CMM) will make virtual crowds on Ascii maps. Our system CMM will aim to simulate virtual crowds by taking the user specified region either Al-Haram in Makka or Al-Haram in Al-Madina or just Al-kabaa region and generate crowd data in one of this region. And also CMM site provide to user to make visolization in openstreetmap on Al-Haram in Makka region . our system will provide an easy-to-use web interface to user to generate the crowd datasets according to controller-bar (to change number of crowd) that user will choose it, anyone will be able to use the system, for example: researchers and authorities responsible for crowd control, organizations and associations. Therefore, researchers and field experts will not need to spend their time to generating this crowd by a complicated tools to the normal user. Instead, they will focus on their main research.

## REFERENCES

