Capstone Project - The Battle of Neighborhoods (Week 1)

**Introduction**

Memphis is a city on the Mississippi River in southwest Tennessee, famous for the influential strains of blues, soul and rock 'n' roll that originated there. Elvis Presley, B.B. King and Johnny Cash recorded albums at the legendary Sun Studio, and Presley’s Graceland mansion is a popular attraction. The city itself has a population of 646,889. Memphis played a prominent role in the [American civil rights movement](https://en.wikipedia.org/wiki/American_civil_rights_movement) and was the site of [Martin Luther King Jr.](https://en.wikipedia.org/wiki/Martin_Luther_King_Jr.)'s [1968 assassination](https://en.wikipedia.org/wiki/Assassination_of_Martin_Luther_King_Jr.). Memphis is a regional center for commerce, education, media, art, and entertainment. There are many restaurants in Memphis, each belonging to different categories like Chinese, Italian , French etc. As part of this project, we will list and visualize all major restaurants of Memphis.

**Business Problem**

How can entrepreneur better understand city demographics and restaurant landscape, before opening new Italian restaurant?

To solve this business problem, we are going to cluster Memphis neighborhoods in order to recommend where entrepreneurs can open new venues. We will recommend arears and highlight facilities surrounding such venues i.e. elementary schools, high schools, hospitals & grocery stores.

To explore and target recommended locations we will access data through FourSquare API interface and arrange them as a DataFrame for visualization.

Questions that can be asked using the above mentioned datasets

What areas has the highest number of restaurants in Memphis?

Which areas have less number of restaurant?

Which areas has higher population?

What is best location in Memphis for Italian restaurant?