**ISyE6501-Course Project**

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**1.Project chosen:**

“Korean professional baseball team KT wiz uses customized marketing and data visualization to keep the stadium filled”

(<https://www.sas.com/en_us/customers/kt-wiz-ko.html>)

**2.Brief description:**

A new team in Korea’s premier baseball league, the KT wiz used large amount of data including booking/payment information, social media postage and others to optimize and customize their marketing strategies.

Actual examples include but are not limited to:

1) strengthening its Legend Members loyalty program

2) sending fans offers for free tickets to increase visiting rates on slow days

3) checking the execution and connecting rates, and see how many tickets were redeemed.

**3.Modeling**

The use of data and analytics varies a lot in this example, with one goal: increasing number of audiences.

Among the analytics included, I choose to model the following :

**“Optimizing market campaigns”,**

To be precise, I consider the scenario of having a total digital marketing budget and marketing campaigns are conducted mainly through online within the team’s app and related websites/fanpages.

I consider the analytics modeling used as the following:

1. **Classifying audiences**

**Given:**

1. Purchasing data (online) with information on age, occupation and ticket types

**Use:** Clustering

**To:** Classify audience into different purchase group

1. **A/B testing for marketing campaigns on each group**

**Given:**

1. Output from previous model(the groups)
2. Multiple marketing campaigns

**Use:** A/B testing

**To:** Decide on optimal campaign for each group

1. **Optimization for marketing resources distribution.**

**Given:**

1. Output of A/B testing
2. Campaign costs and revenue/profit for each campaign of each group
3. Size of group

**Use:** optimization on linear regression model

**To:** distribute resources/budget to each group

**Potential/unsolved problems:**

* Only includes tickets bought through apps and websites, which would ignore potential audiences and people buying at booths
* Market research on potential audience and overall population structure of audience/ city is needed to be more precise
* Focuses on “getting more people who have already been to the games” only.