

# ODD For Bahria cafe model V2

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## 1 Purpose

In university cafeteria most of the time both male and female students come to cafeteria at same time where there were no proper management for male and female students to have their seating. This model was designed to with some instructions given to turtles (students) and they should not sit on the same side with opposite gender. And behavior is understood through this model with real life.

## 2 State variables and scales

Agents like patches and turtles have been used in this model. They interact somehow in cafeteria.

## 3 Process overview and scheduling

Cafeteria is designed with two counter services, different eight tables along with chairs. Students come, order food item and sit according to the rule and regulations. And then leave after finishing their food.

## 4 Design Concepts

### 4.1 Emergence

When the number of students order food item on different counter services and then leave the café after random amount of time, then the emergence behavior form.

### 4.2 Adaptation

The model is improved with the concept of adding two counter services for serving food items on order by different students.

### 4.3 Fitness

The model is improved with two counter services and the students order itself, and leave after some time.

#### **4.4 Prediction**

Students make prediction for ordering their food items by different counter services and make decision.

#### **4.5 Sense**

Students sense food item, order food, headed towards chairs , sense gender and sit with their equal gender on the same side.

#### **4.6 Interaction**

The interaction process occurs among each student when they order food and sit on tables.

#### **4.7 Stochasticity**

Order food items, sit on tables, finishes food and leave.

#### **4.8 Collectives**

All students interact with somehow in cafeteria.

#### **4.9 Observation**

Observation is made that students order food randomly, and make possible interaction to manage their seating plan and then leave the cafeteria.

### **5 Initialization**

Eight tables along with forty eight seats are created at exact location in the café. Students come, order food randomly, sits on the chairs and then leave.

### **6 Input:**

Only enter input is used to command the students with some instruction to follow rules and regulation of the cafeteria.