

# Problem

Packaging format for food products need to be designed based on a simulation model. This model should involve a multi body dynamics study to evaluate the maximum forces the final packaged food will be subject to during transit and handling. A simulation has to be done basis forces that products undergo during the journey in the supply chain.

**Ministry/ Organization name:**

ITC Limited

**Problem Statement :**

To build a computer simulation model for optimizing packaging design for a given packaged food.

**Team Name :**

CodeForVision

**Team Leader Name :**

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# Solution

Optimal solution for Food Packaging.

- A package provides protection, tampering resistance, and special physical, chemical, or biological needs.
- A smart web and android application will be generated which will specify the type such as primary, secondary and tertiary packaging format for the respective food sample.
- Various tests such as shock, vibration, compression, temperature, bacteria, etc will be taken into account while generating the result.
- After physical protection check, different barriers such as barrier from oxygen, water vapor, dust, etc will be applied if required.
- For efficient handling, containment will be decided according to the type of product. Liquids, powders, and granular materials need containment.
- According the recorded data, the algorithm will generate the optimal solution that can be used as packaging techniques for the food product.

## Technology Stack



Android  
Studio 3.0

HTML



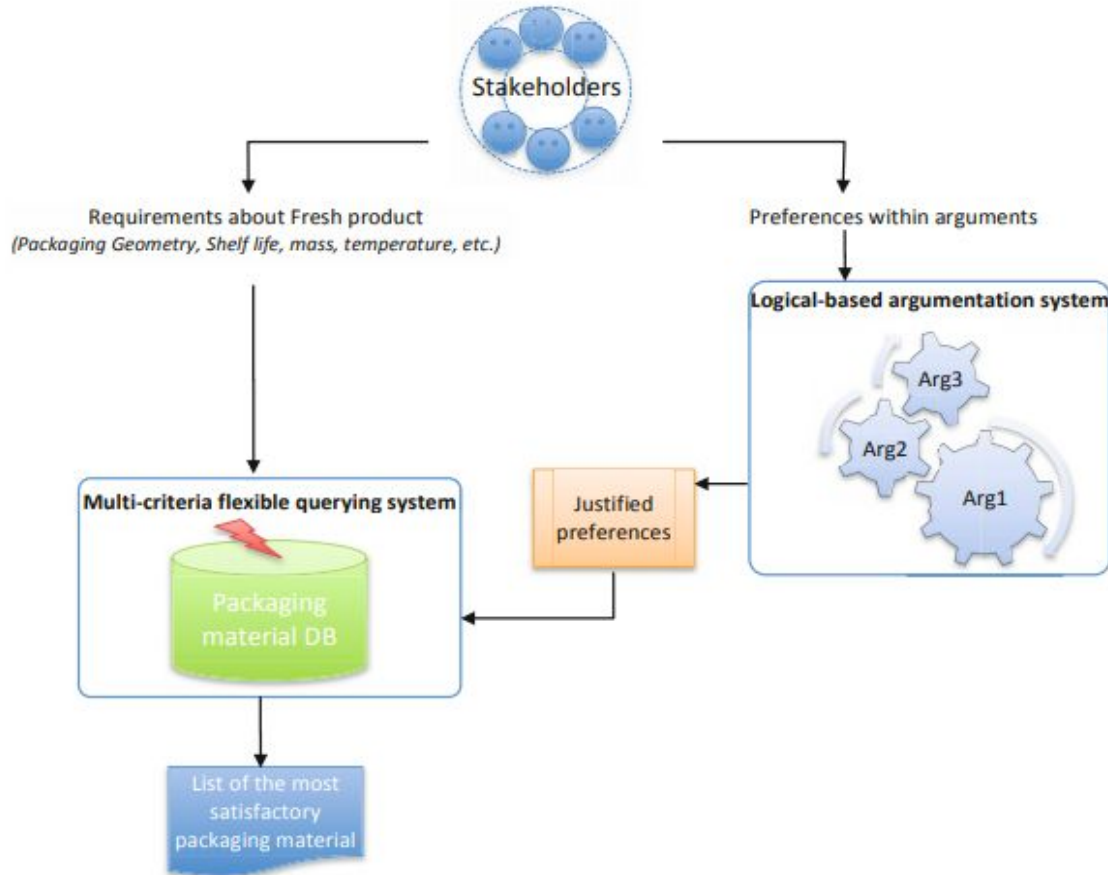
CSS



JS



# Use Cases



# Dependencies

## WHAT DO WE NEED

1. Lot of data is needed to predict an optimal solution.
2. Internet is required to sync the data on server.
3. Database is required to store necessary information of food products.