**Problem Assignment:** You’re the MSBA program director and you break the incoming class into 3 teams. You inform the class know that there are 6 projects available and that each team must take on 2 projects. You tell them to discuss with their team and rate the projects from 1-10 with 10 being their favorite. Now you must determine which project to assign to each group to maximize the satisfaction of the groups. You get the following results:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Preferences | Project 1 | Project 2 | Project 3 | Project 4 | Project 5 | Project 6 |
| **Group 1** | 5 | 5 | 9 | 9 | 8 | 8 |
| **Group 2** | 7 | 4 | 5 | 6 | 4 | 5 |
| **Group 3** | 9 | 8 | 8 | 4 | 4 | 9 |

**Discussion:** The goal is to maximize the satisfaction of the groups when assigning the projects. Our strategy is to create a binary decision variable on whether to assign a project to a group.

**Mathematical Model:**

Parameters:

**Decision Variables:**

**Objective:**

**Constraints:**

Excel Solution:

A picture containing shoji, cabinet, wall

Description automatically generated