**Asset Problem**

**Problem:**

Newlywed couples often have lots of things to purchase to fill their new house.

**Representation:**

* The task in hand and the price of items are stored inside a 2-D array [].
* Binary representation ( 1-selected item, 0-not selected item)
* 20 genes as items

**Sample chromosomes:**

Random Generation of chromosomes. These chromosome stores the price of item. Each gene cannot be repeated.

**Strategy:**

1. Parent Selection

Tournament selection is used to solve this problem.

2. Crossover

Order 1 crossover

3. Mutation

Swapping method

4. Survival Selection

Best Parent and Best children. The winner is copied for next generation.

5. Fitness Function

f(x) =1/( ( |max\_budget-accumulatedPrice| )+ n.items + priorityValue)

**Task Distribution:**

Implementation

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| --- | --- |
| **Task** | **Person in charge (PIC)** |
| Initialization | Rex |
| Fitness Function Design | Rex |
| Parent Selection | Azim |
| Crossover and Mutation | Wani |
| Survival Selection | Safwan |
| Statistical Analysis | Syaza |

Documentation:

|  |  |
| --- | --- |
| **Task** | **PIC** |
| Abstract | Syaza |
| Introduction | Wani |
| Methodology | Azim |
| Result | Safwan |
| Conclusion | Rex |