**Experiment 3**

**Theory:**

XP is a lightweight, efficient, low-risk, flexible, predictable, scientific, and fun way to develop a software. eXtreme Programming (XP) was conceived and developed to address the specific needs of software development by small teams in the face of vague and changing requirements.

Extreme Programming is one of the Agile software development methodologies. It provides values and principles to guide the team behavior. The team is expected to self-organize. Extreme Programming provides specific core practices where −

* Each practice is simple and self-complete.
* Combination of practices produces more complex and emergent behavior.

**Extreme Programming Advantages:**

* Close contact with the customer
* No unnecessary programming work
* Stable software through continuous testing
* Error avoidance through pair programming
* No overtime, teams work at their own pace
* Changes can be made at short notice
* Code is clear and comprehensible at all times

**Extreme Programming Disadvantages:**

* Additional work
* Customer must participate in the process
* Relatively large time investment
* Relatively high costs
* Requires version management
* Requires self-discipline to practice

**Justification:**

To develop Bus Reservation System we have chosen XP (Extreme Programming) methodology. In the future it is possible that there will be changing requirements to make the system more functional and user-friendly, and as a result may bring benefits.