

# SE 110: Software Engineering

Spring 2013

## Project Proposal

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Project title: **Reactive Data System ( Event Driven Architecture )**

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### Team Members :

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### Abstract :

In this project we are trying to build an application which is highly reactive to data modification in RDBMS. For this we need to develop a Event Driven Framework which will consist of mainly three components Event, Dispatcher and Action. User will define events and respective action. Dispatcher will run as a daemon process and check for events continuously if any event occurs then respective action is performed.

It has many applications in scenario where system has to perform action asynchronously depending on incoming data or time based events. Some of example would be setting minimum threshold value of shares to purchase automatically.

Our EDA will be generic framework which can be used by almost any event driven application. For demonstrating our RDS we've selected *admission process* as our domain.

### Role :

1. EDA - Dispatcher Module
  - Dispatcher Module of EDA will consist of two modules namely Listener and Mapper.
  - Listener will keep checking the event repository for event to occur. When event is occurred, starts a trigger.
  - Mapper which will map the event with its action.
2. Admission process Automation
  - Event based Application for admission in IIITB.

- Admission process will contain many Database and Time based events.
  - It will have modules namely Register, Fee management, GATE waiver and Entrance Test
3. Architecture design
- API
  - Publisher API
  - Event Repository
  - Event Type Repository
  - Listener
  - Caller Unit
  - Reaction Repository.

**Faculty Supervisor:** Prof. Chandrashekar Ramanathan

**Signature of Faculty Supervisor**