

# Progress Presentation-I

e-Yantra Summer Internship-2016

Statechart Based Modeling of a System and Code Generation

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# Overview of Project

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## Overview of Project

### Overview of Task

### Task Accomplished

### Task Accomplished

### Challenges Faced

### Future Plans

### Thank You

- Project Name : Statechart Based Modeling of System and Code Generation
- Objective : To create models of different tasks and generate a code using YAKINDU or QM modeling tool or KSE tool.
- Deliverables :
  - Folder containing all the statechart models designed for various tasks.
  - Report

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Sr No.	TASKS	DEADLINES
1.	Syntax and Symantics of state-charts	week 1
2.	Understand the existing standard models of some systems	3 Days
3.	Model some of the tasks	10 Days
4.	Explore statechart editor tool YAKINDU and KSE.	3 Days
5.	Implement the model in KSE tool using liveness formulas or GUI	7 Days
6.	Generate the code from the implemented model	4 days
7.	Make Report	5 Days

# Task Accomplished

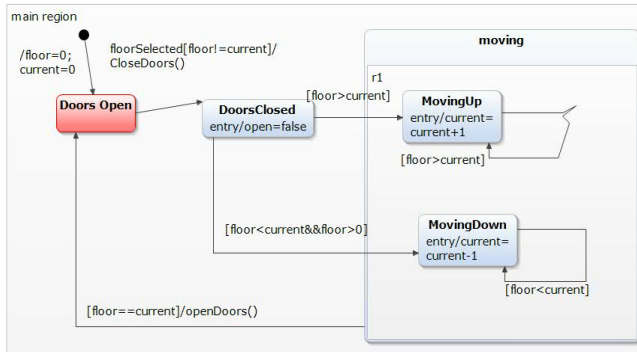
- Learnt Syntax and Semantics of Statecharts.

- What are Statecharts?

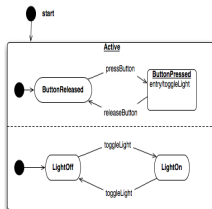
- Its features.

- Clustering

In statecharts we represent every possible state of a system. It might happen that a particular state contains more than one substates and transition takes place from this substates to a respective state on an occurrence of particular event.



- **Orthogonality**  
Orthogonality means AND decomposition of states.



- **Condition and Selection Entrance.** Upon the entrance of the superstate a condition is checked and the transition is made to one of the sub-states in the superstate. The transition is made depending on the generic value of the input rather than the condition.

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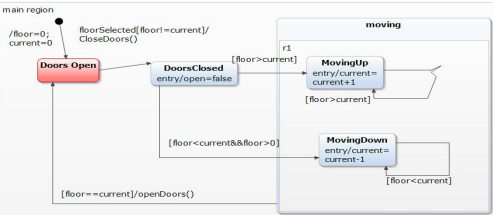
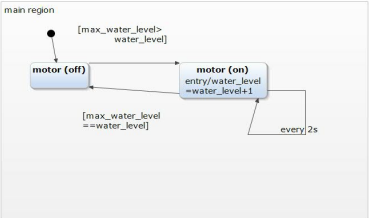
Task Accomplished

Task Accomplished

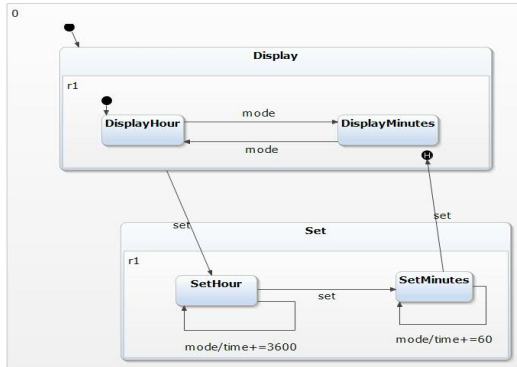
Challenges Faced

Future Plans

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- Significance of History  
History means entering the state most resently visited.



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- Understood the valet parking robot model using statecharts.
- Explored the statechart editor tools YAKINDU and QM modeling tool.
- Modeled some tasks.



# Challenges Faced

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- **Issue** : To find appropriate software for modeling a task.
- To find appropriate software for code generation.
- Understand the generated code and how to make the code Firebird V platform dependent.

# Future Plans

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## Task Accomplished

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## Challenges Faced

## Future Plans

## Thank You

- Model the e-YANTRA competition project using statechart.
- Learn the KSE tool.
- Generate the platform independent code using either KSE or Yakindu or QM.
- Make the platform independent code compatible with firebird V.
- Report.

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THANK YOU !!!