

# INTRODUCTION TO ITP

## IT2080

### Lecture 1

**Sri Lanka Institute of Information Technology**  
**B. Sc. Special Honors in Information Technology**  
**Year 2 – Semester 2**

# Agenda

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- Introduction to ITP
- Semester Plan
- Assessment Details
- Project Initiation
  - Project Charter
  - Project Progress Details
- Guidelines to Succeed the Project
- Proposal Document Template

# Course Identification

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- Course Name: Information Technology Project (ITP)
- Course Code: IT2080
- Credit Points: 4
- Duration: One Semester

# Pre-requisites

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- Knowledge acquired through one and half years of completing the Associate Diploma Course in Information Technology

# Mode of Delivery

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- **Formal**

- 2 hr Lecture session per week
- 1 hr Tutorial per week
- 2 hr Evaluation session ( only for evaluations)

- **Informal**

- Group discussions among the group members
- Members participating in project related work
- Meeting lecturer & supervisor (by appointment)...**Team Leader should communicate**
- Meeting your client (by appointment)

# Mode of Delivery

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- **Resources and Materials**

- All the unit resources and materials will be delivered using the course web.
- Every student must obtain access to the new course web and enroll to the ITP unit.

- **Notices**

- All notices will be published on the course web unit page
- Check the unit page regularly

# Objectives of ITP

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## What is ITP?

- An important piece of work in your degree program
- Involves students in developing, managing and achieving the objectives of an *ICT project*
- A major independent project activity which involves the **defining of the project objectives**, the preparation of a [project](#) documents and showing the various stages of completion of project and develop the product.

# Objectives of ITP

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## Why do you need ITP?

- Provides an opportunity to demonstrate your knowledge & skills in a practical ICT application
- A benchmark of your ability to solve an industry problem using ICT
- Learn to deal with a client
- Improve team work
- Develop various skills such as work under pressure, etc.
- Become outstanding graduate \*\*



# ITP Group

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- A group with 5 to 8 members from same batch(Student group).
- Cannot exceed the limit of 8 members in one group.
- A group leader should appoint by the group itself.
- The project group should register using course web respective batch link.
  - **Note: Ignore this if you have already done.**
- Students without a group should talk to respective Lecture assigned for batch to find a group.

# Categories of Projects

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## ☐ Industry Based Projects

- These projects must have a real client.
- If necessary we can issue a formal letter to the client companies.

## ☐ Projects aligned with competitions

- Example : Microsoft Imagine Cup

# Categories of Projects

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❑ Further in your project you can develop a :

- Desktop Application
- Web-based Application
  - But not a Web site

Examples:

- ❑ Vehicle Management System
- ❑ Hotel Management System
- ❑ Student Management System
- ❑ Hospital Management System
- ❑ Designing systems (Fashion/Fabric)

# Project Scope

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- ☐ **Select a project with the correct scope(size).**
  - The scope must not be too small or too large for a 14 week duration.
  - The project must have at least 8 significant business functions.

# Scope for Individual Member

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- A task/function of the system which has CRUD (Insert, Update and Delete) operations.
- Each member should generate at least one meaningful report for their respective function.
- Other than individual function development, all the members should involve in document preparation.

# Contribution of the Team Members

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- ❑ **You must handle your function from “end-to-end”.**
  - You are in-charge of documenting, designing, coding, testing, integrating, etc. your function.
  - It should not be the case that one member is only writing documents, the other one just doing the ER and the database, another one only designing the user interfaces etc..

# Semester Plan

# Lectures and Tutorial (3 hours)

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- Lectures are activity based.
- Participation for lectures is compulsory and there are marks allocated for activity participation.

## Evaluation (2 hours)

- Evaluation sessions will be conduct only for project evaluations and students are encouraged to spend that time for group meetings, client meetings and project development when there are no evaluations scheduled.



# Self-Study Lab Sheets

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- There are no allocated labs for ITP in timetable.
- Students should self-study following lab sheets and need to use for their project.
- The reports/ screenshots should be included in the final report as a proof of using those for the project (will allocate marks)
  - Trello (Agile Project Management Tool)
  - Git (Version Control Software)
  - Unit Testing using JUnit
  - Introduction to SonarQube for code quality

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# Tentative Delivery Plan

# Weekly Plan (Changes May Occur)

Week	Lecture & Tutorial	Evaluation	Documents
1	Introduction to ITP Projects and Group Clarifications, Proposal Writing	No	Draft charter submission (Online)
2	Scrum activity and presentations	No	Proposal document (online submission)
3	Proposal Evaluation	Proposal Evaluation	Proposal document (Hard copy submission)
4	Proposal Evaluation	Proposal Evaluation	Proposal document (Hard copy submission)
5	Interface Designing and paper prototyping - activities	No	Final Charter Submission (Online submission)
6	ER evaluation and informal progress evaluation	No	
7	Progress Evaluation	Progress Evaluation	Design document (Hard copy submission)
8	Mid-term		

# Weekly Plan (Changes May Occur)

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Week	Lecture & Tutorial	Evaluation	Documents
9	Progress Evaluation	Progress Evaluation	Design document (Hard copy submission)
10	Testing activity	No	
11	Final Report writing	No	
12	Final Presentation and Viva	Final Presentation and Viva	
13	Final Presentation and Viva	Final Presentation and Viva	
14	Final Presentation and Viva	Final Presentation and Viva	Final document (Online submission)

# Assessment Details

# Evaluation Criteria

Evaluation	Marks (%)
Proposal Presentation	10
Proposal Document	5
Progress Presentation	20
Design Document	10
Final Presentation	15
Viva	20
Final Report	10
In-class Activity Participation	10
Total	100

# Assessments

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- During an evaluation all members must be present
- Absent members will not get any marks for that evaluation.
  - Need to submit a medical approved by the SLIIT Medical officer for absence due to serious medical reasons.
- Some evaluations may held **during the lecture and the tutorial sessions**
  - Most evaluations are group activities
- Therefore attending all lectures and the tutorial sessions are important
- All the members of the group must attend the same lecture and the tutorial session

# Assessments

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- In every assessment the contribution of each member is assessed
  - **A “common mark” is not given for the entire project**
- Thus to pass the unit every member's involvement in all project stages and activities are necessary



# Steps to start the Project

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1. Form a group (8 Members) (already done)
2. Find a client (already done)
3. Submit draft charter document (already done)
4. Discuss the project with one of the ITP lecturers
5. Proposal Presentation
6. Submit the approved project charter (Finalized charter)

# Guidelines to Succeed a Project



# Why Do Projects Fail?

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- People begin programming before they understand the problem
  - A team that begins programming too soon will end up writing good software that solves the wrong problem
- The team has an unrealistic idea about how much work is involved.
  - From far away, most complex problems seem simple to solve
  - Teams can commit to impossible deadlines by being overly optimistic and not thinking through the work

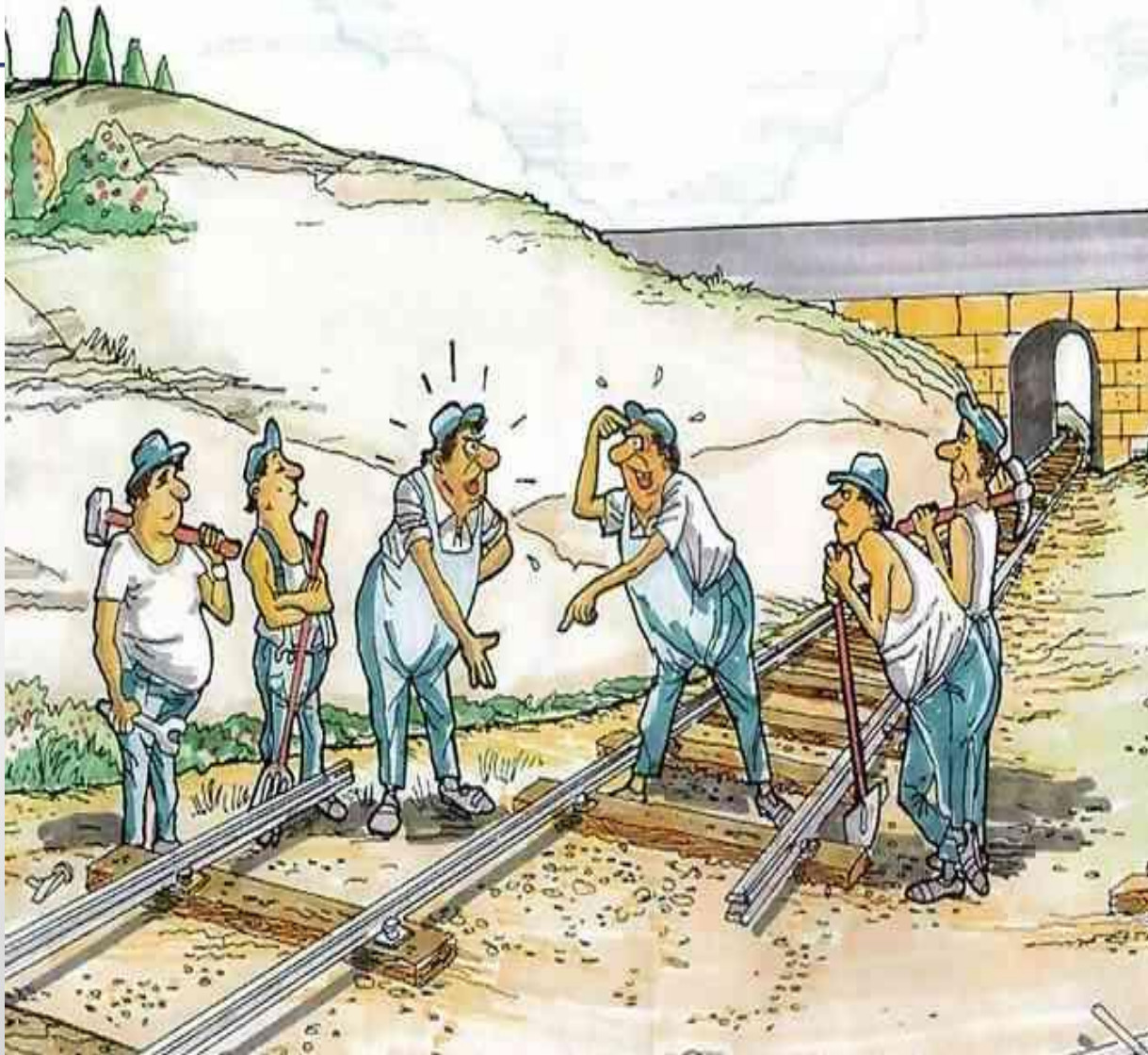
# Why Do Projects Fail?

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- Defects are injected early but discovered late.
- The team does not have a good sense of the overall state of the project.
- Everyone assumes that the testers will catch all of the defects that were injected throughout the project.
- Lack of team work.

funnyinside.com

# Team Work



# How can we make sure that our projects succeed?

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- Make sure all decisions are based on openly shared information
  - Friends and enemies
- All project documents, schedules, estimates, plans and other work products should be shared with the entire team, stakeholders, users and anyone else in the organization who wants them.
- Major decisions that are made about the project should be well-supported and explained.

# How can we make sure that our projects succeed?

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- Just because a leader/manager has responsibility for a project's success, it doesn't mean that he's more qualified to make decisions than the team members
- Introduce software quality from the very beginning of the project
- Use good engineering practices
- Managers and teams often want to cut important tasks – especially estimation, reviews, requirements gathering and testing.

# Contact ITP Lecturers

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## Lecturer-in-Charge - Ms. Uthpala Samarakoon

- Ms. Uthpala Samarakoon (Malabe) – [uthpala.s@slit.lk](mailto:uthpala.s@slit.lk)
- Ms. Geethanjali Wimalaratne (Metro) - [geethanjali.w@slit.lk](mailto:geethanjali.w@slit.lk)
- Mr. S.M.B. Harshanath (Metro & Malabe) – [harshanath.s@slit.lk](mailto:harshanath.s@slit.lk)
- Mr. Dilshan De Silva (Malabe) – [dilshan.i@slit.lk](mailto:dilshan.i@slit.lk)
- Ms. Kushnara Suriyawansa (Malabe) – [kushnara.s@slit.lk](mailto:kushnara.s@slit.lk)
- Ms. Janani Tharmaseelan (Malabe) - [janani.t@slit.lk](mailto:janani.t@slit.lk)
- Ms. Chamari Silva (Matara) - [chamari.s@slit.lk](mailto:chamari.s@slit.lk)
- Ms. Chathurika Koswatte (Kandy) - [chathurika.k@slit.lk](mailto:chathurika.k@slit.lk)

**\*\* Make sure to email the lecturer prior to place an appointment.**



# Submissions (Weekday and Weekend both)

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- Project Proposal (Online) – 15<sup>th</sup> July 2018 11 p.m.
  - A hardcopy of Proposal document need to submit at the time of the proposal presentation.
- Final Charter – at the end of proposal presentations, there will be a link in course web to submit revised project charter.
- Design document (Online) – date will be notified later.
  - A hardcopy of Design document need to submit at the time of the progress presentation.

# Submissions (Weekday and Weekend both)

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- Content of the Design Document
  - Overall Use case diagram and each member should write at least one main use case scenario for their respective function.
  - ER Diagram
  - Screen shots of main interfaces of each member.
- Contribution of each member should clearly mention in the document.

# Submissions (Weekday and Weekend both)

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- Final Document (Online submission)
  - Need to submit at the last week of the semester as a softcopy.
  - All the members in the group must need to contribute in completing the document.
  - Template will be available in the course web in due course.

# Project Proposal Document Template

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- Maximum 10-15 pages document excluding appendix
- Content
  - Introduction
    - Company/Client Background
    - Problem Statement – Current way of handling the tasks and problems face by the client
    - Solution – Proposed solution
  - Benefits of the System
  - System overview – Describe using a high level system overview diagram
  - System Functions – Explain each function in detail
  - Technologies

# Project Proposal Document Template

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- Constraints/Limitations – Ignore if not applicable
- Gantt chart – Milestones and duration for each task
- Work breakdown structure – Description of function allocated for each member. (Use a tabular format)
- References – IEEE format
- Appendix – Additional documents you may think important to include;
  - This is optional

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# Sample Project: School Management System

# School Management system

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- Client: Education Institute/School in your area
- Goal : To automate the school manual work
- Identify the main functions of the school
- Identify the people who are involved with the system and why they use the system

# School functions can be categorized according to the client requirements

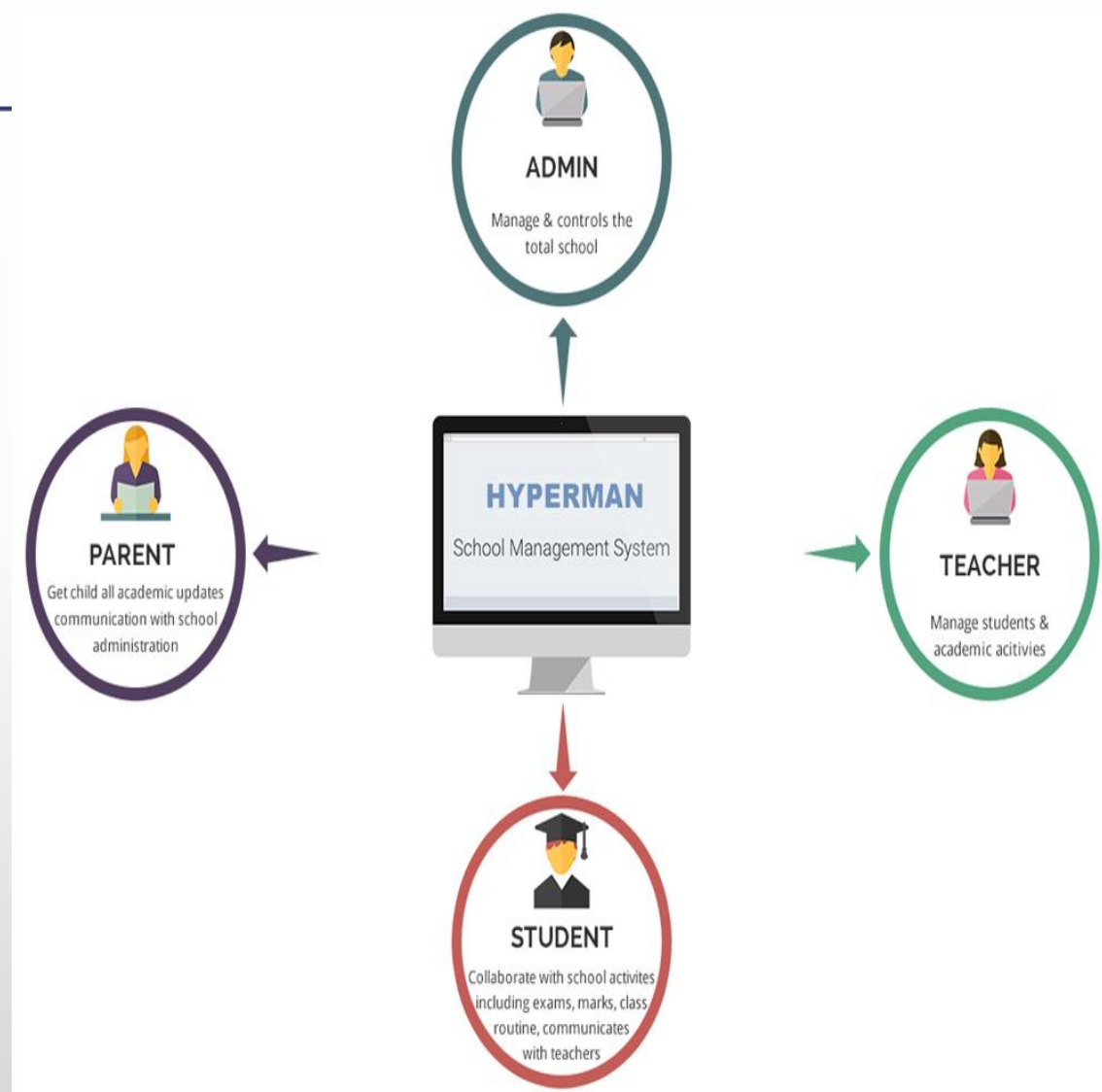




# User Levels

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- Identify who will be going to use the system and what are the benefits from the system.



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# Sample Home Page

EDUCATION PLUS - SCHOOL MANAGEMENT SYSTEM



## ADMIN - HOME



Master Setup



School Staff



Student



Time Table



Attendance



Lesson Management



Exam Planning



Exam Management



Evaluation



Fees



Finance



Roll Over



Login Info



Reports



Message Alert



## HOME PAGE



My Corner



Lesson Management



Exam Planning



Exam Management



Evaluation



Reports

S.No	Date & Time	From	Subject	Type	View
No records to display					



Mode



Individual



Group



Task



Notepad



3:28 / 5:37





## HOME PAGE



Calender



Time Table



Attendance



Homework and  
Assignment



Reports

S.No	Date & Time	From	Subject	Type	View
No records to display					



Mode

Select Subject Teacher



Task



Notepad



3:52 / 5:37





## HOME PAGE



Student Corner



Reports



Fees



Mail Request

S.No	Date & Time	From	Subject	Type	View
No records to display					



Mode

Select Subject Teacher



Notepad



# Attendance Portal

[Home](#)[Standard](#)[Staff](#)[FeedBack](#)[Admin Panel](#)[Contact Us](#)

## Student Login

Login Name : Password : 

Student login with username and password and view reports..

## Staff Login

Login Name : Password : 

Staff can make attendance of student and generate reports after login to system.



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## Attend Today, Achieve Tomorrow

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# Sample Form



SLIIT - Faculty of Computing

# Sample Report

Monthly Final Fee Report

Search By

Session: 2015-2016 Class: II Tuition Month: All

Close Help

SAP CRYSTAL REPORTS

Main Report

**PATLIPUTRA CENTRAL SCHOOL**  
KRISHNA VIHAR, BEUR, ANISHABAD,, PATNA, BIHAR, (801505)  
Contact: 9693326292, 0612-225099, Email: md.arshadhelpdesk@gmail.com  
Affiliated to CBSE, Affiliation No. 345681

Monthly Final Fee Report

Session: 2015-2016 Class: II Month: All

Date	FEE	Amount
02/08/2016	APRIL	800
02/08/2016	DEVELPEMENT CHARGE	500
02/08/2016	ANNUAL MAINTENANCE CHARGE	1000
02/08/2016	MAY	800
02/08/2016	JUNE	800
02/08/2016	JULY	800
02/08/2016	AUGUST	800
02/08/2016	SEPTEMBER	800
02/08/2016	OCTOBER	800
02/08/2016	NOVEMBER	800

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# Any Questions ???

