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SA LEC 10

*Bolger & Slaters
Systems Analysis
Course Notes
Issue 10*

The Systems Analysis

 LECTURE

SA

HND Computing Systems Analysis Assessment 1

Activities based on the Balloon Booking System Case Study

Assessment 1 - Laying the Project Foundations

Assessment Objectives

The principal objectives of this assignment are to encourage the student to investigate and apply to a

'real life' project, the techniques described in Systems Analysis Lectures and Practical Lessons.

Task 1 – Preparing for a Feasibility Study

- Working from any documents and relevant background material which initiated the study, Assess the **scope** and **complexity** of the proposed information system.
- Create an outline description of the existing system and identify the base requirements from the Project Initiation Document (i.e. the Case Study) and enter them as clearly as is possible at this stage, in the first draft of a Requirements Catalogue.
- Report any errors or inconsistencies in the PID back to the tutor.
- Identify anybody who might be involved in using the existing (and proposed) systems.
- Identify the areas to be investigated, and define the methods to be used.
- Agree the Feasibility Study scope and constraints with the tutor.
- Using the techniques of Data flow modeling, Logical Data modeling, and, Requirements definition, produce the **first draft** of the following documents:
 - **A Context Diagram of the existing system (to be used in Task 2)**
 - **A Current Physical Level-1 DFD of the existing system (to be used in Task 2)**
 - **An initial draft of a Requirements Catalogue containing the initial identified functional and non functional requirements (to be used in Task 2)**

Task 2 - Defining an overview of the existing system and any Problems with the existing system

To prepare for this task, ensure that you have in your possession the following documents:

- the Context diagram from Task 1
- the Current physical level-1 DFD from Task 1
- the initial Requirements Catalogue from Task 1

Tasks to be performed

- a. Identify the activities and information in the area of study that are necessary for the balloon business to meet its objectives.
- b. Investigate briefly the current environment. Identify those aspects of the current operations where improvement or change is required. Record known problems with the system in the Requirements Catalogue.

- c. Enhance the existing descriptions of the current system by updating any level 1 DFD's or if necessary expanding DFD's to Level 2.
- d. Consolidate and **summarize** the problems identified into a sub report entitled '**Problem Definition Statement**'. This sub report should clearly establish which problems need to be overcome in any replacement system along with initial ideas of how to overcome them
- e. Produce the **first or updated drafts** of the following documents:
 - **An Outline Description of the Current System**
 - **An updated draft of the Requirements Catalogue**
 - **A current User Catalogue**
 - **A current Problem Definition Statement**

Task 3 - Defining the outline of any replacement system

To prepare for this step, ensure that you have in your possession the following documents :

- The current Outline Current Environment Description,
- The current Requirements Catalogue,
- The current User Catalogue
- The current Problem Definition Statement.

Tasks to be performed

- a. Ensure that any activities to be undertaken by potential users of the replacement system are recorded in the User Catalogue.
 - b. Establish and record all functional (i.e. mandatory) requirements of any replacement system
 - c. Establish and record any required dialogues in the replacement system.
 - d. Establish and record any new processes or functions to occur in the replacement system
 - e. Establish any obsolete processes or functions in the existing system.
 - f. Establish and record any new non-functional (optional non essential) requirements of the replacement system
- g. Establish and record any service levels, response times, recovery, security criteria and constraints.
 - h. Update any existing Requirements Catalogue to take account of any new found requirements in steps A to F of this task.
 - i. Describe an outline of the replacement system in the form of a Level 1 DFD.
 - j. Create an overview Logical Data Structure to include entities and attributes in the proposed replacement system.
 - k. Ensure that you have produced the **first or updated drafts** of the following documents:
 - **A Level-1 DFD of the proposed replacement system (to be used in Task 4)**
 - **An updated draft of a Requirements Catalogue containing the additional identified functional and non functional requirements (to be used in Task 4)**
 - **An Overview LDS of the proposed replacement system (to be used in Task 4)**
 - **An Outline Description of any Required Replacement Environment**

Task 4 – Assemble and Publish the Feasibility Study Report

To prepare for this step, ensure that you have in your possession the following documents :

- **An Outline Description of the Current System (from Task 2)**
- **An Outline Description of any Required Replacement Environment Description from Task 3**
- **The Requirements Catalogue from Task 3**
- **The User Catalogue from Task 2**
- **A Problem Definition Statement from Task 2**

Tasks to be performed

- a. Perform a Brief Cost/Benefit Analysis which will weigh up the disadvantages of cost of a new system against the cost savings in the long term of implementing the replacement system(cost can be financial and in terms of time – see the notes for more details)
- b. Perform an impact analysis (i.e. describe the organisational impact during development,

and during changeover as well as long term effects).

- c. Produce relevant project plans (i.e. an action plan / outline development plan and/or Gantt chart for the envisaged project duration)
- d. Check everything is present and acceptable. Check the completeness and consistency of your work and if necessary or appropriate amend the documents as a result of any reviews carried out.
- e. Assemble and Publish the Feasibility study report document. There are no particular techniques specified to perform this step however see the section of notes under the heading Feasibility Study Report for further guidance.

Assessment 1 - Required Submission from You!

Your submission should be of the form of formal reports which should be in two parts.

1. The first part of the submission should be the 'Public' documentation produced as a result of your findings so far. Essentially this will take the form of the Feasibility Study Report produced at the end of task 4. the contents and sections of this feasibility study should be in accordance with the suggested contents referred to in the notes
2. The second part of the submitted work should be evidence of the 'Private' documentation accrued during the project. This part of your submission must include the following items:

- The Outline Current Environment Description
- The Outline Required Environment Description
- The Requirements Catalogue
- The User Catalogue
- A Problem Definition Statement
- An Action plan
- Feasibility options
- A Study plan
- An Activity Network / Gantt Chart
- Activity Descriptions for the Activity Network.

Assessment Criteria

All assessment rules as laid down in the HND Handbook apply.. For this assessment, you **MUST** submit the Evidence Indicators stated on page FOUR of this document. You might however wish to improve your grades by following the suggestions given below

REFERRAL

A REFERRAL will be awarded if your submission was handed IN ON TIME but was not completed successfully or did not reach the specification standard needed to be awarded a PASS. A referral will mean that the student will have a MAXIMUM period of SEVEN DAYS to raise the standard of the work submitted in order to be awarded a maximum of a PASS grade.

FAIL

A FAIL will be awarded if the standard of a resubmitted REFERRAL work still does not meet the standard needed to be awarded a PASS.

A FAIL will also be awarded to any work received later than SEVEN days after the deadline date above.

Pass	Merit	Distinction
1.All Tasks submitted on time and are correct	1. Student's work demonstrates an effective synthesis of knowledge. Skills and understanding in response to discrete tasks undertaken.	1. Student's work demonstrates an effective synthesis of knowledge. Skills and understanding in response to complex activities.
2. There is clear evidence of the use of all appropriate steps AND techniques laid down in Systems Analysis Lectures	2. Student's work demonstrates an effective command of the language (concepts, expression, presentation) of the subject area covered by the assessment.	2. Student's work demonstrates a fluent command of the language (concepts, expression, presentation) of the subject area covered by the assessment.
3. There is suitable documentation consisting of a 'Feasibility Study Report' which is of a professional standard and which illustrates clearly and concisely the 'general findings' of the first stage of the investigation.	3. There is evidence of the keeping an up to date Requirements Catalogue that clearly identifies both the Functional and Non Functional requirements of any proposed system.	3. There is evidence of 'Extending the Basic Problem Set'.
4. Any conclusions and findings in the Feasibility study report are substantiated as appropriate.	4. There is evidence that the processes and data laid down in any replacement system meet clearly the requirements laid down in an up to date requirements catalogue.	



Faculty of Technology
Division of Computing

**BTEC HIGHER NATIONAL DIPLOMA
IN COMPUTING**

ASSESSMENT RECORD SHEET

MODULE : Systems Analysis
ASSESSMENT : 1
REFERENCE : Laying the Project Foundations
DATE OF ISSUE : 12th November 1998
DATE OF SUBMISSION : 10th December 1998
LECTURER : Slater/ Bolger

STUDENT:

STUDENT ID NUMBER:

Module elements covered by this assignment

COMMENTS :

GRADE

Assessor

Verified

Date		Date	
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