# Data Acquisition

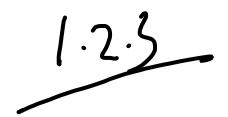
Z Sources of Finding Information for Building Operational Database

### Finding the Data for Database

- **z** Existing Forms
- z Existing File Structures
- z Published Examples/Similar Systems
- **Z** Generic Model
- Z Strategic Plans/ Overview of the business
- z Interviews (the users)
- **Z** Observation (when manual system is in operation)
- **Z** Brainstorming
- **z** Review System Documentation
- Z Questionnaires

# **Existing Forms**

- Z Application for admission form
- Z Course registration form
- Z Course cancellation form



#### School Admission Form

Sample Only

Please complete this form, leaving any parts blank that are not relevant. If there are parts you cannot yet complete please tell the school about these when you hand in the form.

Det	alls of the child to be admitted				
Forename (as on Birth Cetificate)		Other names (also known as)	Surname (Legal not preferred)		
ŀ	If appropriate underline the force Current Home Address	arre by which your child is known	Date of Bith	1	
	post code		Sex (please	*4t)	
ı	If the above is on a military of	amp, what is the name of the camp?			

De	stalls of the pe	ople who	have legal p	arental responsi	ibility for this child	
					ents of the child as well as a gerson. tho has care of the child.	
	Relationship to your child	66, 66	Forename	Surname	Home address, if different from your child's	
	&Daytime	8	ening	& Mobile		
					e-mail:	
	&Daytime	সঃ	Evening	& Mobile		
ļ					e-mail:	
	&Daytime	\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	vening	&Mobile		
					e-mail:	
	The usual arrangements for your child if living with different garants on different days of the week  Additional Emergency Contacts  Exhaust other than the block Water a responsibility for the property of the contact					
	Relationship to the child	Mr. Ms. etc.	Forename	Sumame	Home address, if different from the child's	
	&Daytime	SE	vening	& Mobile		

Rev: Nov 06

### Halesowen College Application Form Admission 2009-2010

Please complete this form clearly and accurately using BLOCK CAPITALS OR if you prefer apply on-line at www.halesowen.ac.uk Student ID No. (for office use only) Return to: Admissions, Halesowen College, Whittingham Road, Halesowen, West Midlands B63 3NA Part 1: Important Information about you and your course Date of Birth Surname Address \_\_\_\_Postal Code Mobile \_\_\_\_\_ email address\* Phone - Home Important Note: If you are already a student at Halesowen College DO NOT complete this form but speak to your Personal Tutor or Senior Tutor Schools/Colleges last attended **Leaving Date** (Please indicate all Schools/Colleges attended since Year 7, including any attended after Year 11) Course applied for at Halesowen College - Please complete Box 1 - AS subjects - please give at least 3 and no more than 4 subjects Box 2 - Vocational course The Collegiate? The IB? Do you wish to apply for: The IB? Yes No Do you wish to apply for: The Collegiate? No Yes **GCSE Subjects** Level Year Result **Vocational Awards** Year Results List all subjects (H/I/F) Taken (if known) Taken (if known)

(

# Existing File Structures

- **z** Student file
- z Faculty file
- Z Account file
- **z** Purchase file
- **Z** ....

### Published Examples/Similar Systems

- z Published similar systems provides a good starting point
- z Published system may not be identical to what we are building.
- z EX: we are developing an Alumni database system for AU
- z Check Georgetown or GWU, see if it has one such database.

- z Everyrisus a set of generic entities that it records data about and
- z A set of activities that it performs
- **z** Generic entities are:
- z Employees
- z Vendors: 供应商
- **z** Customers
- **z** Products
- z Facilities
- z Money

### Example: Medical Database

- z Employees: Doctors, Nurses, Staffs,...
- z Customers: Patients, Insurance companies,...
- z Products: Operations, Tests (blood tests, X-rays,),...
- vendors: Labs (doing testing); Equipment Provides, Food Providers,...
- z Facilities: Operating rooms, ICU, Wards,...
- Z Money: Income, expenses,...

#### Example: Airline Reservation Database

- z Employees: Pilots, Flight Attendants, Staffs, Mechanics,...
- vendors: Food Providers, Airplane parts provider companies, Security providers,...
- z Customers: Passengers, Travel Agencies,...
- z Products: Ticket Reservations, Cancellations,...
- z Facilities: Airports, Baggage Claim,...
- Z Money: Incomes (Sales of tickets), Expenses,...

### Strategic Plans/ Overview of the business

- z Has information about entities,
- z Future new markets, products,
- **z** Changes in operations

Could be studied to see their impact or expected changes on database model

### Interviewas (the users)

- z Interviews involve asking someone a set of questions. Often interviews are face-to-face, but they don't have to be.
- z Interviews:
  - y Forum for talking to people
  - y Structured, unstructured or semi-structured
  - y sample scenarios of use, prototypes, can be used in interviews
  - y Good for exploring issues
  - y But are time consuming and may be infeasible to visit everyone

Observation (when manual system is in operation)

#### **Z** Naturalistic Observation:

z It can be very difficult for humans to explain what they do or to even describe accurately how they achieve a task.

#### **Naturalistic Observation:**

- **Z** Naturalistic observation:
  - y Spend time with stakeholders in their day-to-day tasks, observing work as it happens
  - y Gain insights into stakeholders' tasks
  - y Good for understanding the nature and context of the tasks
  - y But, it requires time and commitment from a member of the design team, and it can result in a huge amount of data

### Brainstorming

z is a group creativity technique by which efforts are made to find a conclusion for a specific problem by gathering a list of ideas spontaneously contributed by its members.

### Review System Documentation

Z Studying documentation: Procedures and rules are often written down in a manual and these are a good source of data about the steps involved in an activity and any regulations governing a task.

- z Functional / Non-functional requirements
- Z Work flow diagrams
- Z Data Flow diagrams
- Z Use Case Diagrams

### Questionnaires

- z questions designed to elicit specific information from us.
- Z The questions may require different kinds of answers: some require a simple Yes/No, others ask us to choose from a set of pre-supplied answers.

Z

# Data gathering issues

- **z** Consistency
- Z Accuracy
- z Completeness (missing entities, attributes, relationships, constraints)
- z Redundancy (Customer=Client, same?)