Software Hut projects since 1997

1997-8

Client A: An event forecasting system for a night club. The system was required to use a database of past events to predict the number of people that will attend an event. Variables such as pricing, availability of discounted tickets and the number of flyers circulated were provided. The system required was to run on a standalone desktop computer and be easy to use.

Client B: Was a small retail chain with ten stores, they required a database to record their timesheets electronically. The actual timesheets would still be completed on paper, but once at head office they would be entered into a standalone computer, so that it would be easier to generate exports to their payroll system and deal with employee queries (about the number of days holiday they had remaining and so on). The system had to cope with estimates of time as well, which would occasionally be revised a month after they were entered.

Client C: Supplies equipment to hospitals and carries out four types of function at the hospitals. They wanted a database system that would hold information about the hospitals supplied, and the orders they had fulfilled in the past. As the functions were carried out by different teams in the company they wanted to be able to easily search just for the relevant information.

1998-9

Client A: Was a company selling utility services to domestic and commercial customers as an intermediary for suppliers. They wanted to update a database so that it could cope with more customers as their company expanded; in particular they needed to ensure that the database could be shared between two computers on a network. The database needed to support their business process which was: when a new lead comes in, make sure that it is not already in the database, if not add the customer, work out the service that is required and get suppliers to bid for it, when the bid was received send the contract to the lead, when the lead responded set up the contract with the supplier.

Client B: Was a charity that helped coordinate volunteers for other charities, they wanted a database of organisations that wanted volunteers that lined to one of volunteers. The organisations identified where they were based and the skills they were looking for in volunteers and the volunteers their aptitudes and the kind of organisation that they wanted to work for. Once both sets of information had been entered the system was required to suggest matches.

Client C: Was a company that sold some specialised parts and wanted a stock control system. They had a very large catalogue with 10,000’s of parts which shared similar characteristics. The system had to be very easy to use and respond quickly as it would

be used to answer telephone queries, by non-expert users. The database would need to be shared between three computers on a network.

1999-2000

Client A: Was a company that provided specialist instruments and wanted a company organiser to keep track of contacts and appointments. Five functionality areas were required, a diary to track appointments of the staff members, a contacts list for all their customers, a sales list to keep track of the instruments they sold, a list of outstanding tasks and a report generator which worked with the data in each of the other areas. The system needed to be run on several computers that were networked together.

Client B: Was a hospital department that wanted to keep detailed reports on a particular group of patients. They had a paper based system but this often produced reports that were not legible and were hard to find. Each patient was checked on a regular basis and a number of measurements taken; from time to time new treatments would be prescribed. Once the data was entered into the system they wanted it to produce neat graphs showing the progress of the patient over time.

2000-1

Client A. An organisation which brokers waste. A waste exchange provides a facility for industrial companies to offer their waste products to other companies who might be able to reclaim something of value from it. The waste exchange maintains a database of current waste products and arranges for the exchange and payment of deals in waste. The project was to build a web based system that interfaces to the existing database and allows clients the opportunity to browse the database.

Client B. A small start up company in the Bioinformatics industry requiring software for data analysis. Various new algorithms for processing and analysing genomic and protonomic data had been developed by the company and what they required was a set of programs that can automatically apply these algorithms to data which is continually being placed on sites on the web directly from the scientific experiments.

Client C. A legal practice centre, which provides specialist training for the legal profession, that aspect that is post academic qualifications and deals with the experiential learning related to legal practice in solicitors' offices. The system required was a computerised assessment system to provide a mechanism for tracking and evaluating individual student's performance on the course.

2001-2

Client A. The primary role of this company is to increase the ability of the self-employed, owners and managers of small companies to start up, survive and thrive. The organisation provides advice and support to small businesses nationally. They wanted a web site for their employees that would let them distribute general documents, policies and procedures to other employees. They wanted to make them accessible away from their main office. They wanted to restrict the access to certain

documents, according to the category of the employee accessing them. Documents contained within the system fall into two categories: those that need only to be read (non-interactive documents) and those that need to be filled in (interactive documents). Their main aim was to improve internal communications among employees. The employees have a fairly good level of computer literacy.

Client B. This university department conducts research using questionnaires to collect information about client. They may run several questionnaires simultaneously. The data generated from these questionnaires is used for a variety of purposes. The department required a system that allowed them to customise the on-line questionnaires and subsequently produce a file containing the data submitted. Security was a primary concern. Every questionnaire should have its own password. A person asked to fill in a certain form receives a password in order to access the questionnaire. Additionally they should remain secure when it is transferred from the client machine to the database. The generation of the questionnaire needed to be very simple and will not require any specialised knowledge; as such it will be usable by anyone with low computer literacy.

Client C. This government funded body encourages adult education in the UK. In order to analyse performance and predict future trends they needed to collate and analyse information such as the number of web-site hits or help-line calls at different times of the day and the number of new registrations. They also need to know how these items of data relate to each other. The proposed problem was to design a statistical analysis programme. The systems' main use would be to help managers plan how best to allocate and manage their resources based on trends and patterns in the data recorded. The proposed system would take the collected data as input in the form of a comma separated values file. Data were recorded on the following aspects: concurrency, year trend, performance indicators, users (hits) per hour and predicted growth. It then constructs relationships between the different variables. This information is then processed and returned in graphical form. The system will have two types of users interacting with it. The first one is the Main System user, s/he is technically competent and capable of understanding quite complex user interfaces. The second one is the intranet user. The range of ability among these users of the intranet is wide.

Client D. A government funded body keeps an archive of journals and key articles that they provide to government departments, the public and the media. They required a system which was simple to use and easy to maintain which allowed them to: Catalogue the existing collection of articles, add new articles, expand the collection to include articles on screening for colorectal, prostate and maybe other cancers, link associated articles, and find and retrieve articles quickly and effectively. A member of the staff will maintain the system, but other staff members will use it to search for articles. They have mixed IT skills. All are capable of operating self-evident systems such as commercial word processors and web browsers, but not a program that requires more specific knowledge or extensive training. They therefore required a system that was simple to install, maintain and of course use, so the client had no special preference for the system appearance or operation beyond the requirement that it should be easy to use.

2002-3

Client A. A government agency needed a database to track how they responded to their customers. The database had to be secure and easy to use. It needed to track the various contacts received from the customers and include a record of the outcomes. Relationships between customers also had to be defined. The staff needed to be able to search for specific customers. The program needed to be easy to used and run from a small number of computers.

Client B. A private medical research company needed a web based system to allow staff to record the results of trails. These would come from a wide variety of sources from both inside and outside of the company. The data needed to be recorded in a standard format that could be sent to a relevant government department, the data could then sometimes be returned in an annotated format. As the procedure is regulated the systems needed to follow the data capture and forwarding processed in a certain way, with certain behaviours in error cases.

Client C. A company that specialised in control engineering wanted a visually appealing, content rich and dynamic website to promote the field of control engineering to school children. The web site had to include a game that demonstrated the key principles of control engineering. Of particular note was that this client was very unsure about what he wanted, so the teams were required to produce prototypes to show him what was possible.

2003-4

Client A. A company that manages a network of healthcare professionals wanted a system that would allow patients to book appointments over the internet. The system would maintain a diary for each professional as well as a profile which would detail their location and types of treatment available. The patients would then be able to search for professionals in their area with appointments at a certain time and the required treatment. The professionals could then confirm or reject the appointment as desired. The network company also required that the system would generate summary reports about the system use.

Client B. Was a dating agency, they required a customer management system to track customer subscriptions and identify customers with particular characteristics so that introductions could be made. Previously the agency had been using an index card system which was reasonably effective but time consuming, thus a computerised system was required to increase efficiency. The customers were to be matched according to their profiles and the preferences that they expressed. As the agency staff only had basic computing skills it was important that the system would be easy to use.

Client C. Was a debt recovery agency, they need a customer management system to track jobs, and contact with their customers and debtors. The system was needed to help plan how staff would attend to jobs, there were a number of staff, job types, locations, and instances of jobs that could be combined in set ways. The system was required to provide the most efficient allocation of the company resources as possible.

2004-5

Client A: Was an estate agent who was advertising properties in various areas for sale. They required a website which would list the properties, allow them to be categorised, and have a search function so that clients could identify suitable properties.

Client B: Was a heath care organisation that loaned specialist equipment to patients. They had a simple database that they used to track their loans, but wanted a more comprehensive system. In particular they wanted a new database system for a desktop computer capable of generating a number of reports, and a system to be run on a handheld computer that would be used in the field. When a staff member returned to the office the handheld system needed to be synchronised to the desktop system.

Client C: Was a recruitment agency who specialised in allowing companies to access the details of prospective employees directly. They wanted a website which both companies and employees could register with, and then the companies could perform searches for desired characteristics of employees. If the search found a good match the company could then pay to receive the details of the job seeker.

2005-6

Client A: Was a health care organisation that wanted a complicated research database to be built. Its main purpose is to record all aspects of potential and current running projects whilst making it directly accessible to investigators that deal with the projects. The project consisted of three stages: 1. Build a new interface to an existing system, 2. Migrate the existing database from Access to MySQL, 3. Implement a web based front end. The project was required to automate the partially manual system which was represented by the following process: First an investigator contacts research department, then a research coordinator fills in data into project database that concerns their project. The coordinator will guide the investigators through from registration to authorisation.

Client B: Was an extension of the previous client B project from the previous year. The key aspect of this maintenance project was to improve the interface, however there were also two new requirements: to build in a reporting system and add extra information to some of the data types.

Client C: Was a university administrator who wanted a system to automate a document review process. She wanted a web based system that University users could use once a number of reviewers had been defined. A number of details were required to identify who the documents should be sent to. Once the documents were reviewed the reviewers entered comments into the website, which were then returned to the original submitter and an administrator.

2006-7

Client A: The client was a local charity that wanted to develop some software to help disadvantaged job seekers write their CV. The client provided a method that he wanted to implement as software for a desktop computer. This gave step by step instructions to help a job seeker identify various bits of information and use it to write a CV. The client wanted the software to finally produce the CV as a printed document, and as an interactive CV that could be presented to employers.

Client B: The client was a university researcher (not computer science) who was about to finish a research project. He required that a dissemination website and CD should be created to promote a large number of reports that they had created. In addition to a standard website a interactive quiz was needed based on a paper version that had already been designed. The quiz took results from a team of people and gave them feedback together. In terms of the website the users needed to be able to register themselves and identify their colleagues.

Client C: The client was a university researcher (not computer science) who was about to start a research project. The project was based across several sites and a number of external collaborators. He wanted a collaboration site where they could exchange draft reports and publish completed ones, as well as disseminate general information to the public. There were several types of registered users of the site; each had different permissions allowing them to see various categories of file. The administrator had the ability to set the type of each user.

2007-8

Client A: The client wanted a social networking website to be used within an organisation to exchange information about holiday and business travel destinations. The website had to integrate into the central login system for the business so that users could post new articles about destinations and annotate a Google map with the location. If the location already existed then the user would simply add more information to existing record. The system also required a search functionality to find the nearest locations to a map point, or text description.

Client B: The client was a recruiter of graduates and wanted a game that could be used to attract graduates to his business. The game was a business simulation that was run on a mobile phone via text messaging answers to a server. The client supplied a phone and a method of reading text messages from it, the students had to write the software to read the messages and move the game on in various ways.

Client C: The client was a university researcher (not computer science) who was about to start a research project. The project consisted of a number of research partners. He wanted a collaboration site where they could exchange draft reports and publish completed ones, as well as disseminate general information to the public. The reports could be uploaded by any registered partner, but were then held until approved by an administrator, at which point all partners could download the report. The public part of the website required a page editor to allow the information to be updated by an administrator.

Client D: This was a project for a university department that wanted a web based system to manage their teaching allocation system. An administrator would allocate

modules to lecturers and set a weight for each module so that the system can report on how much teaching time each lecturer was committed too. The lecturers could log in and view their own modules and set when they were teaching, so that the administrators could see when lecturers were free.