國立勤益科技大學九十九學年度研究所碩士班招生筆試試題卷

所別：研發科技與資訊管理所　　組別：資訊管理

科目：資訊管理

准考證號碼：□□□□□□□□□（考生自填）

考生注意事項：

一、考試時間 100 分鐘。

二、

三、

試題一：〈 25 分〉

從組織性的觀點(而非功能性的觀點)切入，請說明四種主要的資訊系統類型，分別指出各種系統的使用者，並繪圖說明四種系統間(資料流動)的關聯。

試題二：〈 25 分〉

系統開發是以一連串的活動，結構化的程序來解決問題，這些一連串的活動包括哪六項，請依序說明。

試題三：請閱讀個案，並回答下列問題。〈50 分〉

Girl Scout Cookies have been American favorites since the organization's first cookie drive in 1917. The Girl Scots have been so successful selling cookies that cookie sales are a major source of funding for this organization. The Girl Scouts sell so many cookies that collecting, counting, and organizing the annual avalanche of orders has become a tremendous challenge.

The Girls Scouts' traditional cookie-ordering process depended on mountains of paperwork. During the peak sales period in January, each Girl Scout marked her sales on an individual order card and turned the card into the troop leader when she was finished. The troop leader would transfer the information onto a five-part form and give this form to a community volunteer who tabulated the orders. From there, the orders passed to a regional council headquarters, where they would be batched into final orders for the manufacturer, ABC Cookies. In additional to ordering, Girl Scout volunteers and troop members had to coordinate cookie deliveries, from the manufacturer to regional warehouses, to local drop-off sites, to each scout, and to the customers themselves.

The Patriots' Trail Girl Scout Council, representing 65 communities and 18,000 Girl Scouts in the greater Boston area, sold more than 1.6 million boxes of eight different cookie varieties in 2004 alone. According to its associate executive director Deborah Deacetis, the paperwork had become "overwhelming." It changed hands too many times. There was a lot of opportunity for error, because of all the added columns, multiple prices per box, and calculations that had to be made by different people, all on deadline."

The Patriots' Trail Girl Scout Council first looked into building a computerized system using Microsoft Access database management and application development tools. But his alternative would have cost $25,000 to develop and would have taken at least three to four months to get the system up and running. It was too time-consuming, complex, and expensive for the Girl Scouts. In addition to Microsoft Access software, the Girl Scouts would have to purchase a server to run the system plus pay for networking and Web site maintenance services so that system could be made available on the Web.

After consulting with management consultants Dovetail Associates, the council selected Intuit's QuickBase for Corporate Workgroups. QuickBase is a hosted Web-based software service for small businesses and corporate workgroups. It is especially well suited for building simple database applications very quickly and does not require a great deal of training to use. QuickBase is customizable and designed to collect, organize, and share data among teams in many different locations.

A Dovetail consultant created a working QuickBase prototype with some basic functions for the Girl Scouts within a few hours. It only took two months, to build, test, and implement the entire system using this software. The cost for developing the entire system was a fraction of the Microsoft Access solution. The Girl Scouts do not have to pay for any hardware, software, or networking services because QuickBase runs everything for them on its servers. QuickBase costs $500 per month for organizations with 100 users and $1,500 per month for organizations with up to 500 users.

The QuickBase solution eliminates paperwork and calculation errors by providing a clear central source of data for the entire council and easy online entry of cookie orders over the Web. Troop leaders collect the Girl Scouts' order cards and enter them directly into the QuickBase system using their home computers linked to the Web. With a few mouse clicks, the council office consolidates the unit totals and transmits the orders electronically to ABC Cookies.

In the past, the council relied on volunteers to handle their paperwork, dropping it off at the council office or mailing it in. "Now we have a way to actually watch the orders coming in," Deacetis notes. As local orders come in, local section leaders can track the data in real time.

The Patriots' Trail Girl Scout Council also uses the QuickBase system to manage the Cookie Cupboard warehouse, where volunteers pick up their cookie orders. Volunteers use the system to make reservations so that the warehouse can prepare the orders in advances, saving time and inventory management costs. The trucking companies that deliver cookie shipments now receive their instructions electronically through QuickBase so that they can create efficient delivery schedules.

Since its implementation, the QuickBase system has cut paperwork by more than 90 percent, reduced errors to 1 percent, and reduced the time spent by volunteers by 50 percent. The old system used to take two months to tally the orders and determine which scouts should be rewarded for selling the most cookies. Now that time has been cut to 48 hours.

**Questions: (1) Identify the business problem they are facing, how they solve the problem, what are the benefits, what did they do to solve the problem in terms of people, organization, and technology? (20%)**
**(2) What is the method they used regarding information system development? (10%)**
**(3)What did they outsource? (10%)**
**(4)Is there any challenge or problem to outsource in this case? (10%)**