Course Project
Family Financial Tool

Develop a software product that will allow various family members to record and view information about the family’s household finances and about each family member’s individual finances. This tool will have multiple purposes:

- Managing the family’s household finances
- Managing each family member’s finances
- Keeping track of money spent on behalf of each family member, especially each child (e.g., for clothing or school supplies)
- Educating children about financial responsibility – both about individual finances and household finances.

Each family member should have the ability to record and view information (income and expenses) in her/his own account. Parents can also grant each child limited ability to view other information about money spent on the child’s behalf or about household finances. Presumably, parents would grant these permissions based on the child’s age and maturity. For example, they might not allow a younger child to view any information about the household finances. On the other hand, they may wish to allow an older, more mature child to view information about money spent on her/his behalf. A still older child may be given access to some of the information on household finances.

The system should allow parents to customize these permissions for each child when they set up the child’s account, and to modify these permissions as the child grows older and (presumably) becomes more responsible. (Of course, parents can also remove privileges for a child who proves to be irresponsible.) Each child should also have limited ability to restrict who can view her/his personal financial information. For example, the child may want to hide the amount spent on a gift for one parent from that parent, at least temporarily. One possible way to do this is to allow the child to make “deposits” to a gift account, from which disbursements are not visible to parents. Parents could see and limit the total amount deposited to this account to prevent serious abuse.

The limitations on this ability to restrict parental access to information will be set by a parent when s/he creates the child’s account, and can, once again, be modified by the parent when as the child grows older. The system should remind the parent on (or shortly before) each child’s birthday that it may be time to change that child’s privileges. In addition, when the parent creates an account, s/he should be allowed to specify certain broad categories of possible expenses (food and drink, toys, CDs, electronic equipment, clothing, etc.) under which the child will record her/his expenses. It should also be possible to require parental permission for any expense over a certain amount in any category (for example, any expenditure over $100 for electronic gear).
It should be possible to specify regular income for the family or any individual (e.g., a regular paycheck, an allowance, etc.) and have this recorded automatically. In the same way, it should be possible to record periodic fixed expenses (e.g., rent or mortgage payments).

It should be possible for parents to set up college accounts for each child and give the child permission to view the accumulations in those accounts. It should be possible to permit a child to contribute to her/his own college account, but not to spend the money in these accounts. It should also be possible for other relatives to contribute to college accounts if they wish (my understanding is that grandparents often want to do this). As tax policies about such accounts change, it should be possible to upgrade the system to adapt to these changes.

The system should be able to process simple queries about each account (either an individual account or the household account) – e.g. all expenses in a given category over a given period (e.g., all clothing expenses over the calendar year). The system should facilitate the preparation of tax forms by providing information for tax preparation software in an appropriate format. Again, this should allow for future changes in both tax preparation software and tax policy. The system will not itself prepare tax forms.