

SCO200 – Object Oriented Programming II Project

Fedha Youth Group System

Fedha Youth Group is an organisation formed by youths for purposes of saving money and giving loans to members. Eligible members are youths aged 18 to 35 years who intend to start or improve their personal business ventures.

For one to become a member of the group, a non-refundable registration fee of Kshs 1,000 must be paid. Every member is required to contribute a minimum amount of Kshs 500 every month as shares contribution.

When a member contributes for at least six consecutive months, he or she is eligible for a loan. The loan applied for depends on the total shares contributed by a member, the intended repayment period and the type of loan borrowed. The interest rate charged on the loan depends on the type of loan as shown in the following table.

Loan Type	Maximum Loan Amount	Interest Rate Per Month	Repayment Period
Emergency Loan	Equals to the amount of shares	0.3%	1 year
Short Loan	Two times the amount of shares	0.6%	2 years
Normal Loan	Three times the amount of shares	1.0%	3 years
Development Loan	Five times the amount of shares	1.4%	4 years

Fedha Youth Group System loan types

Each member applying for a loan is required to be guaranteed by other members of the organisation. The total amount guaranteed by the other members should be equal to or more than the amount borrowed less the shares of the borrower. All the savings that are not borrowed are kept in the bank as fixed deposit and earns interest at a rate of 0.6% per month.

Any member wishing to exit from the organisation is required to give a one month notice and to have paid back all the outstanding loans borrowed. The loans that the exiting member has guaranteed other borrowers must also have been paid back. Upon expiry of the one month notice, the exiting member is reimbursed the full amount of shares he or she has contributed to the organisation.

At the end of every year, the total revenue earned from the loans borrowed and from the fixed deposits is computed. From this amount, 10% is retained for office expenses and the balance is shared among the members as dividends on shares. The amount of dividends allocated to each member is based on their respective share contributions to the organisation.

REQUIRED:

Develop a computerised Information system using Java programming that would be able to:

(a) Maintain a list of the:

(i) Members in the organisation and their registration fees;

- (ii) Types of loans;
- (iii) Loans borrowed by each member;
- (iv) Fixed deposits;
- (v) Guarantors for each loans borrowed;
- (vi) Shares for each member.

(b) Compute each of the following:

- (i) Total registration fees;
- (ii) Total shares;
- (iii) Maximum loan qualified for;
- (iv) Interest on loans borrowed;
- (v) Interest on fixed deposits;
- (vi) Monthly repayments on the loans borrowed;
- (vii) Dividends payable to members;
- (viii) Guaranteed amount for each loan borrowed;
- (ix) Amount retained by the organisation for office expenses.

(c) Generate each of the following reports:

- (i) Members registration fees;
- (ii) Share contributions;
- (iii) Fixed deposits;
- (iv) Loans borrowed
- (v) Loan repayment schedule per member;
- (vi) The balances after every repayment;
- (vi) Dividends payable to each member.

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