Enrii IT Solutions Sdn. Bhd. (857947-D)
PHP Assignment

You have been given this assignment because you were shortlisted and we really hope to have you to join us. We need to confirm that you are the programmer who really can code and independent on accomplishing task assigned. This is where you can confirm that you are the ONE.

Question

Create a simple PHP web system to "view", "add", "edit" and "delete" loan applications. The system must use MySQL as its database. The database structure for the loan records:

```
create table loan (
      loan_id        int unsigned primary key auto_increment,
      name           varchar(200) not null,
      type           tinyint unsigned not null,
      amount         int unsigned not null,
      duration       smallint unsigned not null,
      installment    int unsigned not null
);

create table document (
      document_id    int unsigned primary key auto_increment,
      loan_id        int unsigned not null,
      file_name      varchar(200) not null,
      extension      varchar(5) not null,
      content        blob not null
);
```

The explanation of the columns:

Column	Explanation
Table: loan	
loan_id	Auto increment primary key for each loan record
name	Name of the applying customer
type	Types of loan: 1 = home loan, 2 = personal loan. This should appear as <u>drop down</u> in input screen
amount	Dollar value field. Amount of loan application. The range of loan should be between RM2,000 to RM100,000.00.
duration	Duration of repayment, in months (not year).
installment	Dollar value field. Installment of loan, this field should be auto computed by the system using the formula, not editable by users. The formula for calculating is given below.
Table: document	
document_id	Auto increment primary key for each document
loan_id	To be linked to loan.loan_id
file_name	Name of the uploaded file
extension	Extension of the uploaded file (e.g. PDF, DOC, DOCX)
content	The content of the uploaded file

The dollar value fields (amount or installment fields) shall be stored in cents instead of dollar. For RM100, the database should store 10000.

The system user must be able to:

1. "List" summary of loan record in a table
2. "View" the details of each loan record
3. "Add" new loan records to the system

4. "Edit" existing loan records
5. On "Edit" screen, the user must be able to upload document
6. "Delete" existing loan records

The formula for calculating "home loan" installment amount:

$$interest = 0.5\%$$

$$installment = \frac{amount \times interest \times (1 + interest)^{duration}}{(1 + interest)^{duration} - 1}$$

The formula for calculating "personal loan" installment amount:

$$duration(year) = \frac{duration\ (month)}{12}$$

$$installment = \frac{amount \times duration\ (year) \times 8\% + amount}{duration\ (month)}$$

We hope you could use **Laravel framework** (https://laravel.com/) to complete the assignment, as majority of your work with us in the future will be related to Laravel framework. There are lots of online tutorials and resources that you can refer to fulfil the requirements of this assignment. You could also take this opportunity to learn a new framework and prove your learning capabilities.

Your deliverables are:

1. All source codes (including framework codes if applicable)
2. A simple README instructions on where to locate database configuration settings
3. Database structure script, if it is different from the above (you may include sample data too)

We will need to execute your source code in our web server.

You will be evaluated on:

1. Robustness of the system – how each input is being verified and the possibility of spoiling the system with weird inputs
2. Easy-to-understand and tidyness of the code – we are very fussy on even the indentation, spacing, brackets and line breaks.
3. Object oriented design – how object oriented is used to fulfil this assignment
4. Ability to understand and fulfil the requirements stated
5. Implementation of mathematics equation and numbers manipulation

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Some sample correct data to be in database:

loan_id	name	type	amount	duration	installment
1	Ahmad	1	10000000	360	59955
2	Lee Ah Boon	2	5000000	84	92857

When displaying the data to users it should look like:

ID	Customer Name	Type	Amount	Duration	Installment (auto)
1	Ahmad	Home	100000.00	360	599.55
2	Lee Ah Boon	Personal	50000.00	84	928.57

Please complete this assignment within 1 working day. You may use all internet resources to help you finish this assignment.

In case you are not clear of the requirements above, you please speak to us or may shoot your questions to englee@enrii.com. I believe I have made the question very clear by writing this long.

Appendix A: List Screen

Loan > List

[Add New]

View	Edit	ID	Customer Name	Type	Amount	Duration	Installment
[X]	[X]	1	Ahmad	Home	100,000.00	360	599.55
[X]	[X]	2	Lee Ah Boon	Personal	50,000.00	84	928.57

Appendix B: Edit Screen

Loan > Edit

ID	1	* fixed
Customer Name	Ahmad	
Type	Home	*drop down
Amount	100,000.00	
Duration	360	
Installment	599.55	

Uploaded Document

[Upload]

View/Download	File Name	Extension
[X]	CopyIC	PDF
[X]	ApplicationForm	PDF

[Save]   [Cancel]