

HOW MUCH DO I OWE YOU?

subject : 19CSE100

group number : 15

section: CCE A

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PROBLEM STATEMENT



To create a social money management tool that records and deals with debts with a comprehensive data. It should provide space to a group of people to view each others' contribution or money movement when worked combined for a particular task.



PARAMETERS AND CHARACTERISTICS W.R.T THE PROBLEM STATEMENT

5.

It also represents data by graph to track the growth, analyse the data between weeks, months and years

6

For group of friends we have split option. This enables the available amount of money to get split equally, show split ratio and split percentage.



1.

The amount of money spent or earned or borrowed or lent can be monitored

2.

Block chain technology is used to save data in a server or a cloud so it is end-to-end encrypted

3.

Artificial intelligence is used to auto track the expenses and income

4.

Pictorial representation easily shows the expenses contributed by the respective persons in a group

7.

Currency can be changed as per location.

8

A proof of receipt or warranty of the bills can be added.

9

Categories can be created where money is often used such as bills, EMI, food and drinks, Health etc. It also helps in a quick review, if needed.



PROBLEM ANALYSIS – 1



AIM

To reduce baffling in the subject of money management especially in case of debts, expense and due bills.

REQUIREMENTS

Exhibition of data on the money which is spent/given/borrowed/balance amount remaining which should benefit when dealt for a group of people

CHALLENGES

The entry of expenditure details into the spreadsheet manually, i.e., when money handled through wallet rather than online mode

The user may find it difficult to understand the concept of debt management and split bills

PROBLEM ANALYSIS – 1



CONSTRAINTS(LIMITATION)

The solution restricts at the users who handle their money expenditure through cash

It cannot run among all devices

The app cannot be accessed through website

If weak passwords are typed, it leads to security issues

Human error also occurs in all aspects

Using public WIFI is not recommended

Payments are tied to the user's phone. In case if the phone is lost, then it becomes a serious issue

ALTERNATIVE SOLUTION

The online version with all the features of the solution is an alternative solution to this problem.

It cannot be considered as the appropriate solution because, it does not give assurance for the security concerns of the data belonging to the user's money expenditure.

Whereas, in the app with all the features of the solution implemented it guarantees for the security of the user's data as well as provides consistency of using the app.

TO ELABORATE WHY THE PROPOSED SOLUTION IS IMPLEMENTABLE

1.

It is a tool which can reduce arguments or misunderstanding on the subject of money expenditure among the users

2.

It is the best way for financial management with the help of spreadsheets

3.

We use NFC, which is the easiest way to make payments and track among friends

4.

The expenditure details of the user is protected i.e., end to end encrypted and have all the security concerns.

5. It gives the details of how much amount of money owed to whom and for what purpose

6.

Consistency in using the solution when used through app



TO IDENTIFY THE APPROPRIATENESS OF THE SOLUTION ON ANOTHER NON- TRIVIAL PROBLEM OBSERVED

1.

It serves as a reminder to pay the bills as well as debts as the due date approaches nearby.

2.

It cannot only be used among a group of friends, it can also be used within a company combining its department

Problem ANALYSIS – 2



• PROBLEM TYPE

The solution for this problem can be solved by a computer

• STRATEGY

Spread sheets provide a comprehensive and a lucid presentation of the data belonging to the user

• SATISFYING THE ESSENTIALS

- It solves all the decomposed sub – problems as well as the requirements of the user.
 - It is user friendly

8. PROBLEM ANALYSIS - 3



PATTERN RECOGNITION

The process by which the solution works can be recognized as a pattern. The pattern of recording and analyzing the data belonging to the user is observed.

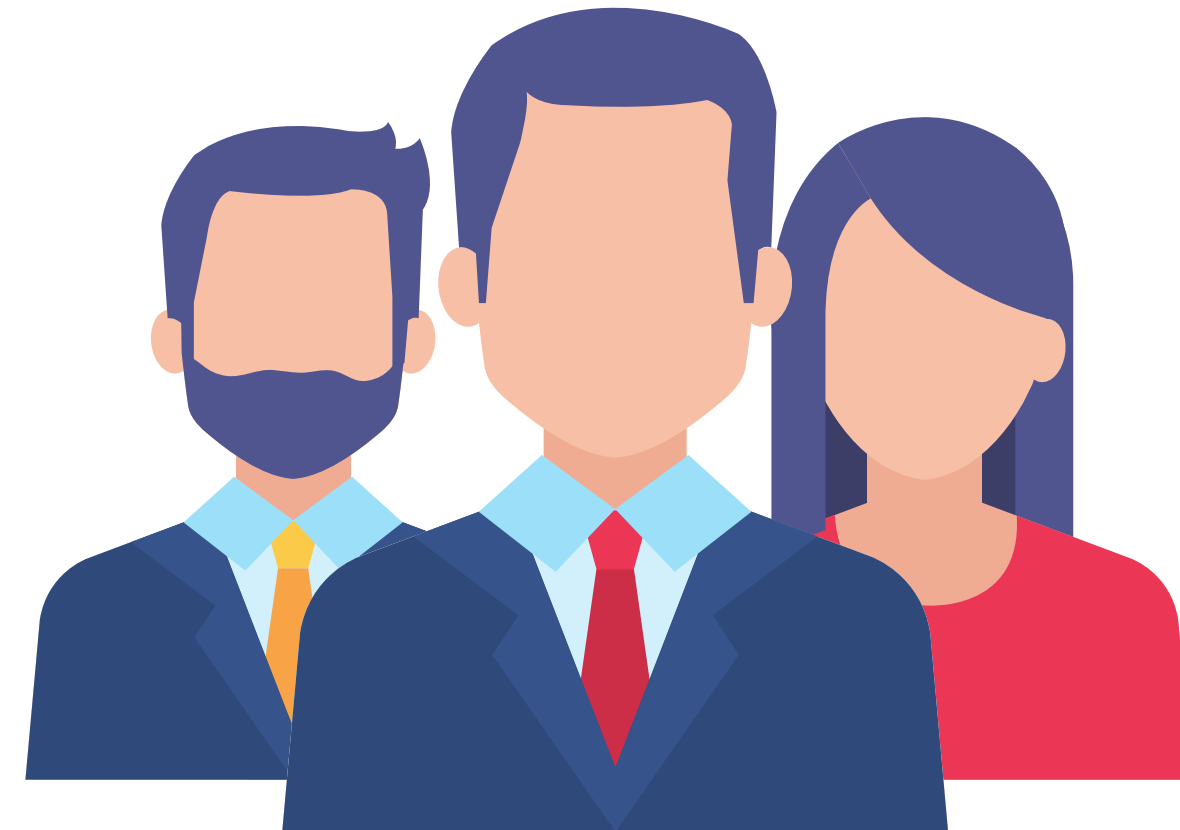


ABSTRACTION

As this solution contains calendar as an additional feature which could help in reminding the task, Features like

Reminder on birthdays

Reminder on personal tasks Can be abstracted as it does not help with solving the problem.



Features

1. Daily & monthly expenses will be shown.
Due dates for payments will be mentioned in
calendar

Calendar

2. User can create a group with friends/relatives
and can be for sharing money for any event.

Group

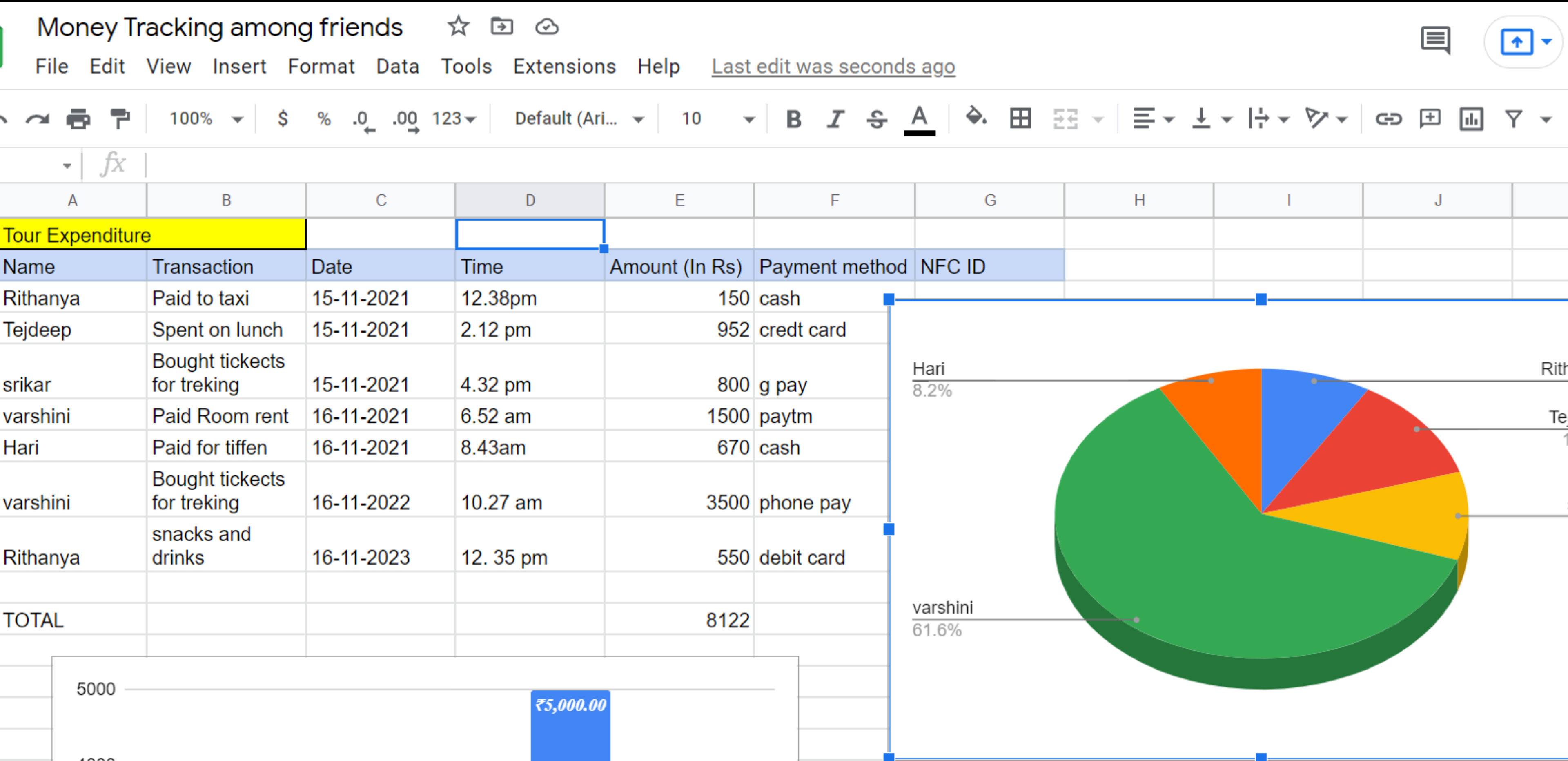
3. Can be used to transfer money through online
with anyone.

Transfer

4. Money left will automatically shown as
savings after the income and expenses
deducted.

Savings

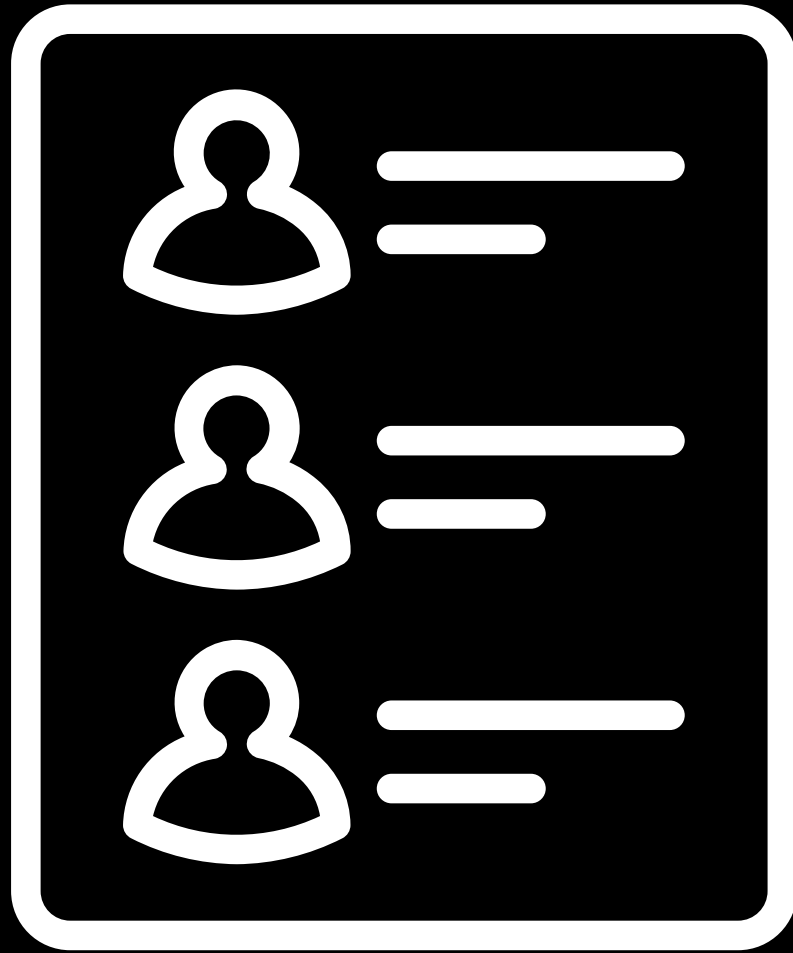
GROUP IN EXCEL TO SAVE PAYMENTS & EXPENSES





Money Transfer

Contacts



*Mode
of Payment*

UPI

NFC

Excel

*Easily share
& save your
payments in
excel with
just one click*

Income

A 3D pie chart illustrating the distribution of financial transactions. The chart is divided into six segments, each with a label and a percentage. The segments are: RECEIVED (27.3%, yellow), EXPENSES (21.9%, red), SAVINGS (31.2%, teal), TRANSFER (11.7%, blue), SPORTS (4.4%, orange), and CATEEN (3.5%, green). The chart is viewed from an angle, giving it a three-dimensional appearance.

Category	Percentage
RECEIVED	27.3%
EXPENSES	21.9%
SAVINGS	31.2%
TRANSFER	11.7%
SPORTS	4.4%
CATEEN	3.5%

NOVEMBER

Monthly Spent Amount: ₹4480

Sunday

7th November
Money Spent
₹300

Monday

1st November
Money Spent
₹1100

8th November
Due Date to pay your TATA SKY
Subscription



Thank you

