

Please write your name below:

Full name: _____

1. Charity donation Task

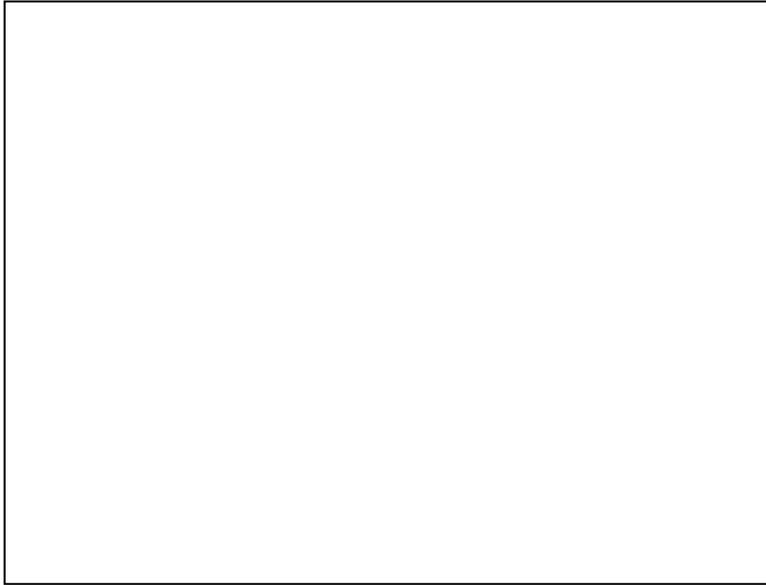
Staff at **We-R-Nice Ltd** have decided to set up charity payments. A computer program is to be created which will allow the **input** of how many **hours** an employee works per week, and their **hourly rate**. The program outputs their **gross pay** and **charity donation**.

Gross pay is simply hours worked * hourly rate.

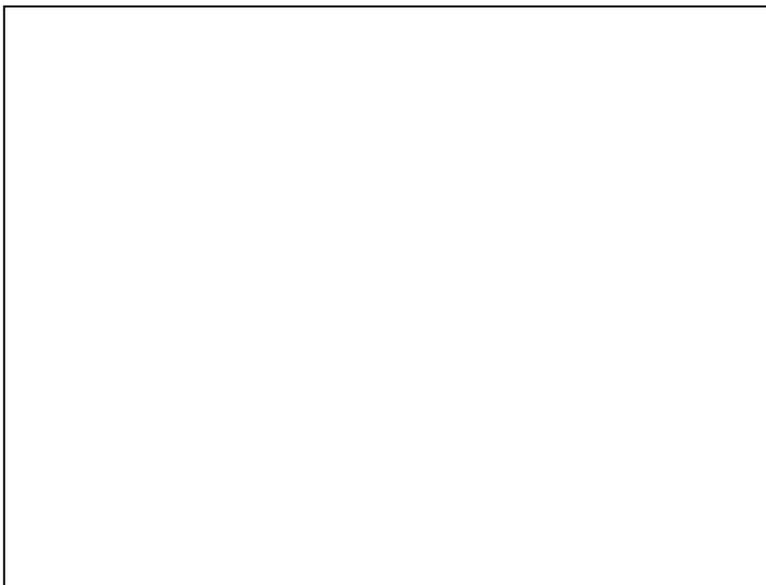
Charity donation rules: if they earn over £100, they will have £1 deducted for charity for every £10 over £100. So if they earn £135, that is £35 above £100, so £3 is deducted. The program should ask if you wish to carry out another calculation.

Tasks

- a. Create a user interface design for this program. It will need to allow inputs of hours and hourly rate, and output earnings and charity deductions.



- b. Create a flowchart that will demonstrate the working out of wages and charity deductions.



c. Write the algorithm in pseudocode.

Some pseudo code to help start you off complete the rest of it below

'GET INPUTS
Input hourlyRate
Input hoursWorked



d. Create a list for the variables you will need for the program.

Variable name	Comments
hourlyRate	How much is paid per hour to an employee

e. Create the program in a programming language of your choice then and copy and paste the code below. The code must be commented. You must also take a screenshot of your results of your program below too.

Insert code and screenshots of results here

2. Databases

A database is a collection of records that are stored in a logical order within a table.

A record is a collection of fields.

A field is one attribute of an object or person.

This can be explained further from the example below:

A business could store a database of customers that is made up of many individual customer records within a table. Each record would consist of individual fields that make up one record.

Example of record: Jill valentine, 31 Solihull Road, B92 6HG

Example of fields used: First name: Jill, Surname: Valentine, First line of address: Post code: B92 6HG

a. Complete the following table below

Scenario:	Explain how each scenario would use a database?
Mobile Phone: 	
Shop: 	
Library: 	

A database can be stored as a flat file database or a relational database.

A flat file database is data stored in a single table.

A relational database is data stored in multiple tables. This is done through tables sharing relationships which will be discussed later.

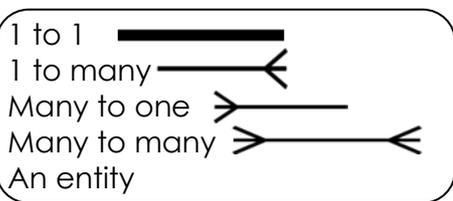
b. Scenario

A doctor's surgery uses a flat file database. What potential problems could occur using this type of database?

The surgery is looking to use a relational database instead? Suggest the benefits of using this type of database below:

Benefits of using a relational database

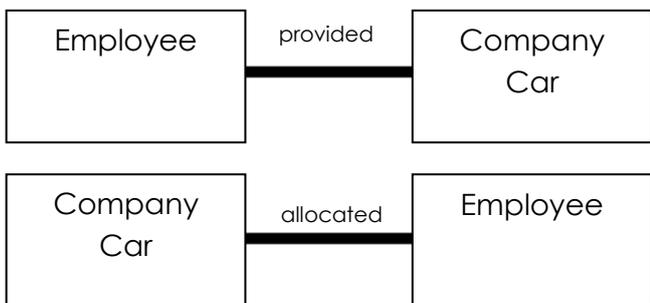
A relational database uses tables that are linked to one another through the form of relationships. These relationships can be drawn using what is known as an entity relationship diagram. These consist of:



Symbols used to indicate type of relationship

Example

1. What is the relationship between an employee and his company car? Answer: One employee can have one company car
2. Draw the E-R diagram for the previous question



Entity relationship diagram

c. Answer the following questions below:

Draw the Entity relationship diagram for a blind person and a guide dog.

Draw the Entity relationship diagram for a hospital ward and patients

Draw the Entity relationship diagram for a college library. (Books borrowed have many copies)

3. Social Media Sites

Task A - Investigate some Social Media Sites

The table below contains a list of some of the world's most important social media sites. Complete the details. If you are not familiar with the site you may need to do some research into the features it has. In the 'Likely audience profile' column try to identify the type of people who might use the site and what they might use it for.

Site	Site main features	Likely audience profile
Facebook		
Twitter		
Google+		
Instagram		
YouTube		
LinkedIn		
MyMFB		
Pinterest		
Vine		

Site	Site main features	Likely audience profile
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Snapchat		
Tumblr		
WhatsApp		
vk.com		
Secret		

Task B - Write a short report comparing how two different companies use Social Media.

Watch the video below to help you see how companies use Social Media

<https://www.youtube.com/watch?v=6Fz3yoaZu68>

Then:-

You might like to think about a company providing takeaway food like McDonalds v a small local shop selling takeaway food.

Points to help you:-

- Think about how they target their audience
- What language do they use ?
- What types of social media do they use
- Do they use different Social Media to target different types of audiences

Report title: How companies use Social Media

Write your report here