

Coursework project

- Video shop -

Database & design

ANALYSIS

Situation and main problem:

At the moment, my friend owns a video shop; he uses a paper system, which means he does not use a computer. Using paper, he must find pieces of information one by one. For example, if a customer wants to see the film 'Cats & Dogs' but my friend does not know if the film is in stock, has arrived yet or has sold out. He needs help to solve the problems linked to the paper system. He needs to change from a paper system to a computerized system.

1. I have identified and listed the problems that the video shop needs to solve:

- The paper records take lots of space.
- It is hard to find which films are in stock.
- It is hard to find which films a member has taken out and how long the film has been out for.
- There are sometimes spelling mistakes in film names, which can cause confusion.
- The video shop owner cannot easily know what new films are coming out on video.
- The marketing of the video shop needs improving:
 - There is no mailing list of members.
 - There is no promotional leaflet for the video shop.

2. Solutions

I am going to use a computerized system to create a video shop database and other things, such as a mailing list and leaflets etc.

2.1 Paper records to computerised records

a) Output

- On Screen: list of members, videos in or out, details of videos.

b) Information to be output

- Lists of all information of members, that is: members' names, addresses, telephone numbers, e-mail addresses, gender, date of birth etc.

c) Data needed to produce the output

- My friend has the data on the paper and I am going to put all the data in the computer database. The data that I will need to put into the database is all information regarding videos (Certificate, Category, time etc.), members (Name, address, telephone number, E-mail address etc.), loans (limit for the video loan etc.) etc.

2.2 Films in stock

a) Output

- On screen: Database of films in stock.

b) Information to be output

- Video number, title of video, (category)

c) Data needed to produce the output

- I am going to use Access (database software) to check the video status.

2.3 Videos taken out

a) Output

- On screen: Database of videos that a particular member has taken out.

b) Information to be output

- Member number, name, address, video number and title, length of rental

c) Data needed to produce the output

- My friend has got a paper database record, which I will transfer into the computer.

2.4 Spell check

a) Output

- On screen: Highlight incorrect or unknown names of videos.

b) Information to be output

- Correct names of videos

c) Data needed to produce the output

- A list of the films the video company has sent.

2.5 New films coming out on video

a) Output

- On screen: Database of films to be released.

b) Information to be output

- Title, date released, price, type of film, certificate.

c) Data needed to produce the output

- A list of new film releases from the Internet or mailing from the companies that produce films.

2.6 mailing list of members

a) Output

- To be sent to members:

1. Letters
2. Envelopes

b) Information to be output

1. member name on the letters
2. address on the envelope

3. letter about what is on offer this month

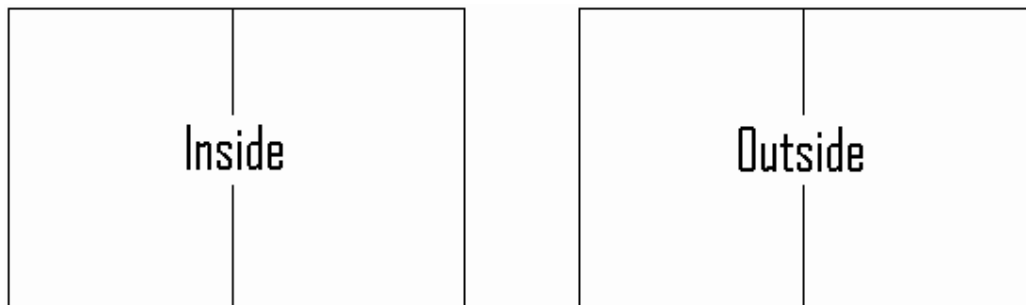
c) Data needed to produce the output

- Members' details for letters and envelopes: my friend has got a paper database of members, which I will transfer into the computer database. I am then going to use mail merge and link the membership database and a form letter to create a mailing list.

2.7 Promotional leaflet of video shop

a) Output

- A5 promotional leaflets will be made on two A4 sheets that the video shop can use as masters for the inside and outside of the leaflets.



Picture 1. Leaflets for video shop

b) Information to be output

- Latest releases, special offers, details about the shop.

c) Data needed to produce the output

- Information from film companies: scanned photos, prices, time limits for the offers, date of new releases, map of the video shop.

d) Details of the pages

- Front page: Video shop title, date and photographs.
- Back page: Map of video shop, latest releases.
- Inside page: Special offers, review of films and the video ranking

3. List the desired outcomes and performance criteria

3.1 Paper records to computerised records

- This data is going to be saved in the computer database so it will not take up any space in the video shop because the video shop owner is not going to use paper any more when he knows how to use this computerized system.
- The computerized system must be reliable and able to save data safely. The data must be updated every day, and my friend should back up the data when he changes the database. I am going to explain to my friend how to back up the data.
- The computerised system will make it easier to manipulate data.

3.2 Films in stock

- Finding out what films are in stock will be easy. It will be done through a query in the video table, based on a Yes/No field that tells you if the video is out on loan or not. The software will notice when you type another letter in that field and will remind you what you ought to be typing.

3.3 Videos taken out

- Finding out what films are in stock will be easy. It will be done through a query in the members' table based on field 'videos currently out'. The software will notice when you type another letter in that field and will remind you what you ought to be typing.

3.4 Spelling check

- All spellings should be corrected automatically, which will allow my friend to find all video and members' information more easily.

3.5 New films that are coming out on video

- I will ask the distribution companies to send a list of new releases electronically, so that the data can be manipulated more easily.

3.6 Mailing list of members

- All members will know what the special offers are and what new films are being released. They will therefore be tempted to come and rent some new releases.
- Customers' addresses must be correct so that the mail is going to the right place. They will therefore be tempted to come and rent some new releases.

3.7 Promotional leaflet of video shop

- New customers will know where the shop is, what services it offers and any special promotions.

4. Testing

4.1 Paper records

- There needs to be tested because when people record lists of members' information or lists of videos, they sometimes make mistakes.

4.2 Films in stock

- Print out the films in stock and check against video shelves. Check to see if any videos are missing and update database if necessary. If any extra videos are found check members database to see who had it out last and change record.

4.3 Videos taken out

- Print out the films taken out and check to see if any videos are still on the shelves.

4.4 Spelling check

- If the video names are spelt wrong, an error message will appear.

4.5 No testing because the data is sent by the production companies and simply stored in the computer.

4.6 Mailing list of members

- It needs to be tested because if the members' addresses are written incorrectly, the information letters will be sent to the wrong place.

4.7 Promotional leaflet of video shop

- It needs to be tested because in the promotional leaflet, if there are any mistakes, they have to be corrected.