

Video store database: TestingInput

<i>Test Data</i>	<i>Reasoning</i>	<i>Expected Outcome</i>	<i>Actual Outcome</i>
Enter records in <i>Table 1</i> into Membership table.	Checking only valid data can be entered into Membership table.	Records 1-6 are accepted. Others rejected.	Error messages generated for incorrect data entry. See <i>Figure 1</i> .
Enter records in <i>Table 2</i> into PriceCode table.	Checking codes can only be a single digit long, and price only a valid positive currency.	Records 1-4 are accepted. Others are rejected.	Error messages generated for invalid data, as in <i>Figure 2</i> .
Enter records in <i>Table 3</i> into Rentals table.	Check referential integrity and only valid input allowed.	Records 1-7 are accepted. Others are rejected.	Error messages generated for invalid data and breaking rules of referential integrity. See <i>Figure 3</i> .
Enter records in <i>Table 4</i> into Tape table.	Check only valid input allowed. Referential integrity does not allow rented videos to be deleted.	Records 1-18 are accepted. Others are rejected. Only valid Certificates can be entered. Only valid price codes can be entered.	Referential integrity does not allow rented videos to be deleted. Error messages generated when invalid data is entered.

Processing

<i>Test Data</i>	<i>Reasoning</i>	<i>Expected Outcome</i>	<i>Actual Outcome</i>
Check buttons on main page open correct forms.	Check linking of forms correctly.	Correct forms open.	Correct forms open. See <i>Figure 4</i> .
Check buttons on customer details form.	Check search works correctly. Search for first member (1), and most recent (6), then invalid values, (7), (0), (-1), (Hello)	Invalid values generate "Not found" or type error message. Valid values return Member record.	As expected.
Check fields on customer details form.	Check fields link to correct data.	Label matches with correct and correct data from database displayed.	As expected.

Output and storage

<i>Test Data</i>	<i>Reasoning</i>	<i>Expected Outcome</i>	<i>Actual Outcome</i>
Overdue rentals report generates correct headings, finds all overdue and unreturned videos and data displayed correctly.	Check report is correctly created using appropriate data and formatted.	Report prints overdue rentals in a table.	As expected.
Database is successfully updated when new data entered.	Check using access new records added through front-end are added to database.	Records are successfully added to the database.	As expected.

Table 1

Record Number	Membership Number	First Name	Surname	House Number	Street	City	Post-code	Phone Home	Phone Mobile	DOB	Email
1	1	J	Smith	21	Long Road	Cambridge	CB1 3PH	(01223) 762185	07485463298	10/01/1987	john.smith32@hotmail.com
2	2	Harry	MacMillan	76	Orchard Close	London	LN1 8FH	(01856) 836457	07876382476	02/10/1971	macmillan_88@btinternet.com
3	3	Ben	Jones	41	Bird Road	Bristol	BR7 8FL	(01756) 823653	07234657235	31/01/1936	
4	4	Henry	Studdart	1	Cheese Lane	Manchester	MN8 3DE	(01285) 926573	07139816238	01/09/1977	cheesy@aol.com
5	5	Gurpreet	Singh	54	Young Road	Edinburgh	ED1 9UI	(01945) 9264	07234578963	06/02/1953	singh_g@microsoft.com
6	6	Lucy	Thomas	8	Spalding Way	Cambridge	CB8 8WJ	(01264) 926384	07961247862	12/03/1967	
7	7		James	-2	Harry Lane	Happy Place	GH2 8QH	(Happy) 876239	N/a	29/02/1963	
8	7.1	Flora		99							

7: FirstName, Required field blank. Happy not valid format for telephone number. N/a not valid for Phone Mobile. Invalid DOB.
 8: Invalid Membership number, Surname, Street, City, Post-code, Phone Home and DOB required fields not entered.

Figure 1

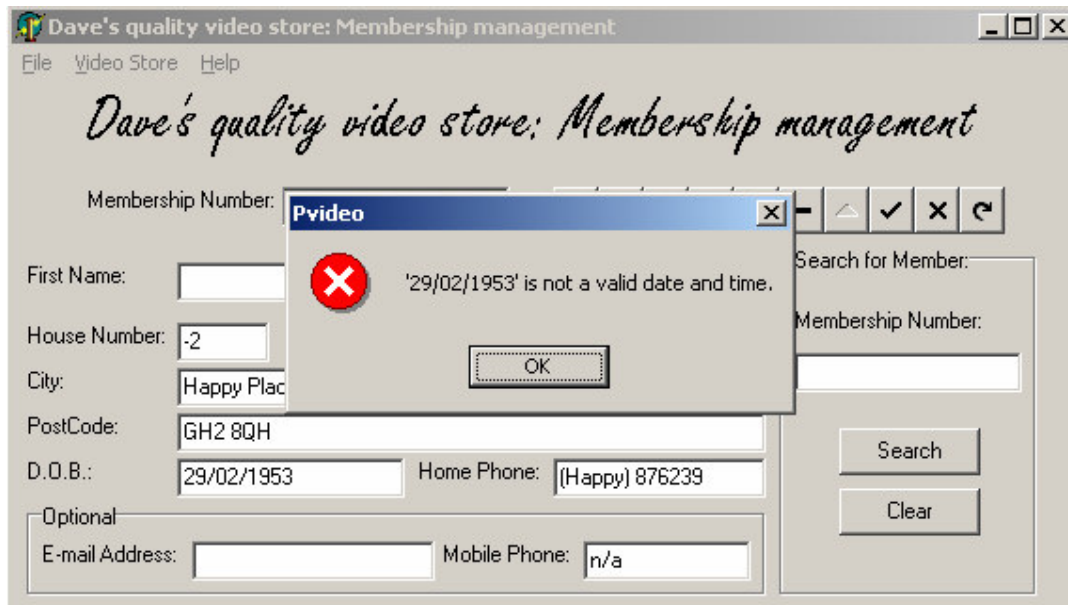


Table 2

Record Number	PriceCode	RentalCharge
1	A	£4.00
2	B	£2.50
3	C	£1.50
4	D	£1.00
5	AM	£1.23
6	3	Five pounds

5: Invalid PriceCode
6: Invalid RentalCharge format

Figure 2 →

PriceCode must be unique.
Invalid data cannot be entered.

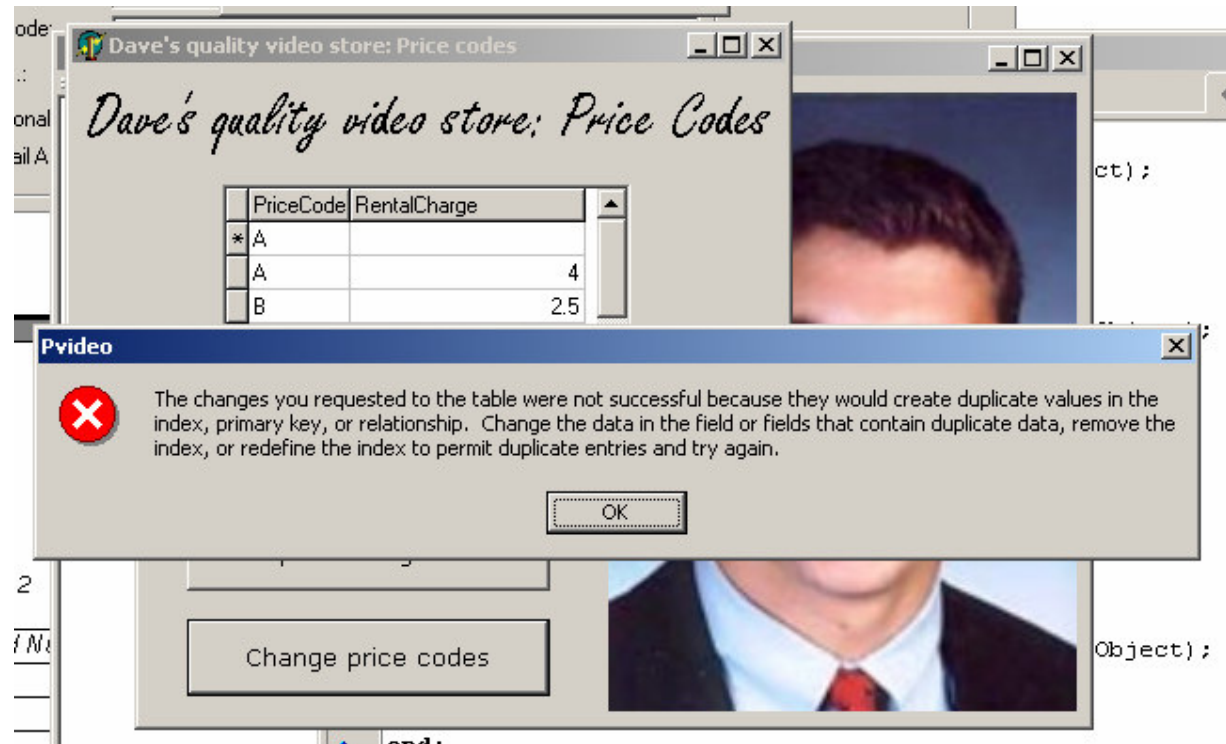


Table 3

Record Number	RentalNumber	MembershipNumber	TapeNumber	DateOut	DateIn	Returned
1	1	1	1	17/10/2003	18/10/2003	Yes
2	2	2	1	18/10/1982	19/10/1982	Yes
3	3	6	18	01/08/1987	02/08/1987	Yes
4	4	5	10	08/04/1955	09/04/1955	No
5	5	4	6	03/05/1964	04/05/1964	Yes
6	6	4	4	21/10/2003	22/10/2003	No
7	7	3	16	21/10/2003	22/10/2003	No
8	-2	133	7	Tuesday	Tomorrow	No
9	23.77	4	348	24/11/2003	25/11/2003	Unsure

8: Invalid RentalNumber, MembershipNumber generates error due to referential integrity, member does not exist. Date format invalid.
 9: Invalid RentalNumber, TapeNumber generates error due to referential integrity, tape does not exist. Returned not valid, Boolean allows True/False only.

Figure 3 →
 Referential integrity generates error as Customer #234 does not exist.



Table 4

Record Number	TapeNumber	Title	Certificate	PriceCode
1	1	The Borrowers	PG	B
2	2	Kill Bill	18	A
3	3	Bambi	U	C
4	4	Sleeping Danger	12	B
5	5	Godfather	18	A
6	6	Never eat the dog	12	B
7	7	Loosing sleep	15	D
8	8	Online	12	C
9	9	Elysium	15	C
10	10	Caspirius	E	A
11	11	Notting Hill	12	A
12	12	Monsters Inc.	12	A
13	13	Monsters Inc.	12	A
14	14	Shrek	15	B
15	15	Comedy Genius	18	C
16	16	Scream I	18	B
17	17	Communication?	12	A
18	18	Don't use this	18	A
19	19	V3	19	M
20	19.2		18	R
21	23.6	Virus	18	A

19: Invalid Certificate and PriceCode.

20: Invalid TapeNumber and PriceCode. Required field, Title, left blank.

21: Invalid TapeNumber.

Figure 4

The screenshot shows a web browser window with the title "Dave's quality video store" and a sub-window titled "Dave's quality video store: Membership management". The page content includes a heading "Dave's quality video store: Membership management" in a cursive font. Below the heading is a "Membership Number:" label followed by a text input field and a set of navigation buttons (back, forward, home, search, etc.). The form is divided into several sections: "First Name:" and "Surname:" with input fields; "House Number:" and "Street:" with input fields; "City:" with a wide input field; "PostCode:" with an input field; "D.O.B.:" and "Home Phone:" with input fields; and an "Optional" section containing "E-mail Address:" and "Mobile Phone:" with input fields. On the right side, there is a "Search for Member:" section with a "Membership Number:" label, an input field, and "Search" and "Clear" buttons. The browser's address bar and other interface elements are partially visible at the bottom.