Westwood Dog Training
Worked Exemplar & Walkthrough

Cambridge OCR R060 • J836 • Published SAMPLE assessment only • Teacher-led practical guide

NOT FOR LIVE NEA

This document explains the author-created workbook using the supplied Fees, Monday Dogs and Owners files and the provided eight-test plan. It is not an official mark-awarded exemplar. Evidence screenshots must be captured in the software.

Assessment map

Task	Maximum marks	Evidence
1. Planning and designing	23	Requirements, flowchart, annotated wireframe, HCI and output plans
2. Creating	23	Formula-driven spreadsheet, validation, reports, lists, chart, scenarios
3. Testing and evaluating	14 (7 + 7)	Only the eight supplied tests and justified evaluation

Task 1 — design exemplar and discussion

Functional flow: import Owners/Fees/Monday Dogs → validate permitted values → match OwnerID → count sessions by class → apply F/R discount → round each per-dog/per-class subtotal → sum dog totals → produce charts/lists/scenarios → test and evaluate.

HCI plan: branded START menu; clear descriptive links for MONDAY, OWNERS, FEES, REPORTS, LISTS, MODELS and TEST PLAN; consistent back-to-home navigation; contrast-rich headings; yellow input fields; blue-green calculated fields; meaningful validation / missing-owner messages.

Requirement	Workbook evidence	Design issue
Easy-to-use HCI, calculations not on landing screen	START; HYPERLINKs	First sheet and sheet tabs must be checked in Excel
Details of owners and dogs	OWNERS / MONDAY	Duplicate dog names mean ID must identify a record
Data integrity	MONDAY C7:G41, H7	Protect formula cells in a production version
Income per dog	MONDAY J:N	Buddy £7.88; Daisy £13.00
Income by class and over four weeks	REPORTS	Class income totals reconcile to £413.90
Two-week attendance / non-	REPORTS / LISTS	Clearly define what no attendance

attendance		means
Special promotion	MONDAY O:P	22 dogs eligible
Charts and lists	REPORTS / LISTS	Chart labels and filtered output should be screenshotted
Remove discount / increase fees 50p	MODELS; MONDAY Q:R	£449.50 / £469.88

Key design judgement: keep the landing screen free of calculations, but a production system should also hide helper columns and protect formula cells. The supplied practice workbook does not enforce sheet protection.

Task 2 — practical step-by-step build

01 · Check the provided assets

Open Owners.csv, Fees.csv and Monday Dogs.csv. Do not delete entries or treat blank attendance cells as sessions. The supplied four classes are Puppy (P, £3.00), Bronze (B, £3.50), Silver (S, £4.00) and Gold (G, £4.50). Note F = full, R = 25% reduced; the original files do not supply ages or benefit status.

02 · Plan the HCI before creating cells

Sketch START with seven navigation buttons (MONDAY, OWNERS, FEES, REPORTS, LISTS, MODELS, TEST PLAN), a visible logo and clear instructions. Add a back-to-home button on each page. Keep calculation sheets off the landing page and separate input areas from formula results.

03 · Import the lookup data

Paste the 35 owner records into OWNERS!A6:E40 and class codes, class names and fees into FEES!A6:C9. Keep telephone numbers formatted as text. In OWNERS!F6 enter =B6&" "&C6&" "&D6 then copy down to F40. In FEES!G5 enter 25% and in G6 enter 0.50 as the fixed scenario increment.

04 · Import dog attendance data

Use MONDAY!A7:G41 for the 35 dogs; enter their OwnerID, dog name, F/R status and week 1–4 class codes. In the source CSV, the real column headers are on its third row. Blank cells mean no recorded visit; do not replace blanks with a class code.

05 · Add meaningful validation and formatting

Set MONDAY!C7:C41 to a dropdown list F,R. Set D7:G41 to P,B,S,G (allow blanks). Colour input cells pale yellow and formula cells pale blue. Apply currency formatting to J:N and Q:R. Add a visible warning for unknown owner IDs, and use the same house style on the main menu and reports.

06 · Link owner information using lookup functions

In MONDAY!H7 enter =IFERROR(VLOOKUP(A7,OWNERS!$A$6:$F$40,6,FALSE),"OWNER NOT FOUND"). In I7 enter =IFERROR(VLOOKUP(A7,OWNERS!$A$6:$F$40,5,FALSE),"MISSING"). Fill both down to row 41. A fixed lookup range is important when formulas are copied.

07 · Calculate one class-category subtotal per dog

For Puppy in MONDAY!J7 use =ROUND(COUNTIF(D7:G7,"P")*FEES!$C$6*IF(C7="R",1-FEES!$G$5,1),2). In K7 change P to B and C6 to C7; in L7 use S and C8; in M7 use G and C9. Use absolute references for the fee/discount parameters, relative row references for each dog. Fill J7:M7 down to row 41.

08 · Generate totals and promotion flags

Enter =SUM(J7:M7) in N7. Enter =COUNTIF(D7:G7,"P")+COUNTIF(D7:G7,"B")+COUNTIF(D7:G7,"S") +COUNTIF(D7:G7,"G") in O7. In P7 enter =IF(O7=4,"YES","NO"). Fill N7:P7 down. Buddy (ID 103) should show £7.88; Daisy (ID 110) £13.00. Four visits qualify for the promotion.

09 · Build the four-week finance report

In REPORTS, use =SUM(MONDAY!$N$7:$N$41) for four-week income. For Puppy use =SUM(MONDAY!J7:J41); Bronze uses K, Silver L and Gold M. Use COUNTIF(MONDAY!D7:E41,"P") and COUNTIF(MONDAY!F7:G41,"P") for Puppy attendance in each two-week block; repeat for B/S/G.

10 · Build the interactive class lists

In LISTS set B5 to chosen class code, B6 to selected period. For a dog row (LISTS row 9) enter =IF($B$6="Weeks 1–2",COUNTIF(D9:E9,$B$5),COUNTIF(F9:G9,$B$5)) in H9; =IF(H9>0,B9,"") in I9; =IF(H9=0,B9,"") in J9. Fill down to row 43. Filter I to nonblank for attendees; J to nonblank for dogs with no visit to that class. The latter can still attend another level.

11 · Separate actual attendance from missing weeks

For each dog, a blank in BOTH weeks means zero attendance at ANY class in that period. Example in LISTS!K9: =IF(AND(D9="",E9=""),"NO VISITS","HAS VISIT"). For weeks 3–4 use columns F and G. The report has 2 dogs with no visits in weeks 1–2, and 3 in weeks 3–4.

12 · Create the chart with a clear purpose

On REPORTS, use the summary table A14:D18 for a clustered column chart titled “Class attendance by period”. Use Puppy, Bronze, Silver and Gold as categories and Weeks 1–2 / Weeks 3–4 as two named series. Check the vertical scale counts visits, not distinct dogs; include a legend.

13 · Model the two changes independently

No discount: for each dog sum ROUND(COUNTIF(week-codes,"P")*PuppyFee,2) and repeat for B/S/G; never apply R discount. +£0.50: for each class sum ROUND(COUNTIF(week-codes,code)*(class fee+£0.50)*(1−discount if R),2). Use MONDAY columns Q and R, then MODELS to sum each scenario. Never overwrite the baseline fees.

14 · Test only the supplied eight items

Copy the eight descriptions from the supplied Westwood Test Plan.rtf. Before testing, enter test data and precise expected results. Use Excel to carry out opening, navigation, validation, Buddy/Daisy calculations, chart and list checks. Fill actual results and take genuine screen captures. If a test fails, record what was changed and retest.

15 · Evaluate against the brief and HCI

Write an evidence-led evaluation: relate each feature to Zac's needs, quote actual output values, explain clarity of layout/navigation, discuss colour contrast, learnability, labels and meaningful messages. Identify improvements you can justify (e.g. lock formulas, hide helper calculations). Do not claim user testing or invent feedback.

Formula reference cards

Owner lookup · MONDAY!H7

```
=IFERROR(VLOOKUP(A7,OWNERS!$A$6:$F$40,6,FALSE),"OWNER NOT FOUND")
```

Exact-match VLOOKUP matches OwnerID to the sixth column in OWNERS; dollar signs lock the owner table when copying down.

Bronze subtotal · MONDAY!K7

```
=ROUND(COUNTIF(D7:G7,"B")*FEES!$C$7*IF(C7="R",1-FEES!$G$5,1),2)
```

COUNTIF counts Bronze sessions, fee is £3.50, IF applies 75% to reduced-rate records; ROUND finishes each per-dog/per-class subtotal at pennies.

Dog income · MONDAY!N7

```
=SUM(J7:M7)
```

Sum four separately rounded class-category subtotals, so class totals and dog totals reconcile.

Sessions recorded · MONDAY!O7

```
=COUNTIF(D7:G7,"P")+COUNTIF(D7:G7,"B")+COUNTIF(D7:G7,"S")+COUNTIF(D7:G7,"G")
```

Counts only valid training codes, excluding blanks and any accidental invalid code.

Promotion · MONDAY!P7

```
=IF(O7=4,"YES","NO")
```

Only four recorded weekly sessions qualify, regardless of class changes.

Puppy, weeks 1–2 · REPORTS!C15

```
=COUNTIF(MONDAY!$D$7:$E$41,B15)
```

The criteria cell is P for Puppy. Counts visits, not distinct dogs.

Four-week income · REPORTS!B7

```
=SUM(MONDAY!$N$7:$N$41)
```

Aggregates already rounded per-dog category totals, consistent with individual records.

Class attendance choice · LISTS!H9

```
=IF($B$6="Weeks 1–2",COUNTIF(D9:E9,$B$5),COUNTIF(F9:G9,$B$5))
```

Uses a chosen class and two-week period, so staff can filter to visited / not visited lists.

No visits at ANY level, weeks 1–2 · LISTS!K9

```
=IF(AND(D9="",E9=""),"NO VISITS","HAS VISIT")
```

This measures a different meaning of absence than “no visits to Puppy”.

Higher fees scenario · one class element of MONDAY!R7

```
=ROUND(COUNTIF(D7:G7,"B")*(FEES!$C$7+FEES!$G$6)*IF(C7="R",1-FEES!$G$5,1),2)
```

Repeat for P/S/G and add the four class elements to model a £0.50 increase with discounts retained.

Verified expected outputs

Class	Weeks 1–2 visits	Weeks 3–4 visits	Four-week income
Puppy	16	17	£90.75
Bronze	14	23	£114.65
Silver	18	8	£96.00
Gold	10	16	£112.50
TOTAL	58	64	£413.90

Check	Value	Explanation
Dogs imported	35	The MONDAY worksheet contains 35 dogs matched to owners by ID.
Recorded visits	122	Four weeks of P/B/S/G entries total 122 visits.
Promotion eligible	22	Only dogs with all four weeks recorded are eligible.
Buddy income	£7.88	Buddy, ID 103, has three Bronze visits at reduced charge.
Daisy income	£13.00	Daisy, ID 110, has two Puppy and two Bronze visits at full charge.
Baseline income	£413.90	Sum of rounded per-dog, per-class category subtotals.
No-discount income	£449.50	The discount is removed, with attendance fixed.
Fees +£0.50 income	£469.88	All fee categories increase 50p and the 25% discount is retained.

Two-week no-visit figures (ANY level): 2 dogs in Weeks 1–2 (Roscoe; Cooper/ID197); 3 dogs in Weeks 3–4 (Remi, Maya, Sadie). Class-specific no-visit counts are different: for Puppy / Weeks 1–2, 10 distinct dogs attended Puppy at least once, while 25 had no Puppy visit. A dog might attend another level.

Rounding policy: Buddy has 3 × £3.50 × 0.75 = £7.875. Rounding once for his Bronze subtotal gives £7.88. Rounding every visit would give £7.89. This exemplar consistently rounds each dog/class subtotal to 2 decimal places, then sums. The published assignment does not specify a half-penny rounding policy.

Task 3 — the prescribed eight tests

#	Prescribed test	Expected result / evidence

1	Spreadsheet opens on main menu	START first with menu and brand; Capture the loaded workbook with START selected.
2	Navigate main menu → Monday	MONDAY opens at A1; Capture MONDAY sheet after clicking the link.
3	Navigate Monday → menu	START returns; Capture START after returning.
4	Data integrity	Allowed choices F/R and P/B/S/G; invalid inputs rejected/flagged; Screenshot a validation message; if pasting bypasses validation, note a limitation.
5	Buddy income	£7.88 using subtotal rounding; Capture MONDAY Buddy row and FEES Bronze amount.
6	Daisy income	£13.00; Capture MONDAY Daisy row and corresponding fee references.
7	Correct chart data	P 16/17; B 14/23; S 18/8; G 10/16; Capture chart with the REPORTS class-period table.
8	Correct list data	10 Puppy attendees, 25 with no Puppy visit; Capture the dropdowns and filtered I/J lists.

The provided eight-test plan has headings: Test number, Test Description, Test Data, Expected Result, Actual Result, Evidence, Remedial Action (if required), Evidence of Retesting (if required). Write observed actual outcomes after running Excel, capture clear screenshots, and record a fix and retest only when needed. Do not claim evidence has already been collected.

Model evaluation — example discussion

How effectively the system meets the client requirements

The workbook connects 35 dogs to their owner details by ID, overcoming repeated dog names. It records 122 training visits and reports a consistent four-week income of £413.90. Per-class income, a grouped two-week attendance chart, class-dependent filterable lists, and a 22-dog promotion list all support the operational tasks Zac described. The no-discount scenario projects £449.50 (+£35.60), and the fee-rise scenario £469.88 (+£55.98). These are fixed-attendance revenue comparisons, not forecasts of profit or changed demand.

Effectiveness and limitations of the HCI

The START sheet provides an understandable entry point with high-contrast headings, labelled navigation and a consistent return link. Editable inputs are distinguishable from calculated cells. These choices aid learnability, memorability and staff navigation. However, calculation columns and tabs are still accessible and sheet protection has not been applied, so input security is incomplete. A dedicated entry screen, locked formulas and hidden processing would better match the original design brief.

Prioritised improvements

1. Lock/protect formula cells while leaving designated entry cells editable. 2. Hide calculation helper columns and add a purpose-built attendance-entry form. 3. Validate owner IDs against a permitted list as well as warning on

failed lookups. 4. Configure printable report and promotion-list layouts. Each recommendation targets a specific risk or staff need.

Classroom discussion prompts

- Why is owner ID a more reliable key than dog name?
- Explain the absolute/relative references in the Bronze subtotal.
- How do visit counts differ from unique-dog counts?
- Why does £0.50 extra per class not guarantee extra profit?
- What makes a test plan trustworthy rather than simply claiming “Pass”?
- What would be needed to demonstrate that the HCI genuinely hides calculations?

Source basis: Published OCR R060 Westwood Dog Training sample assignment, supplied Fees.csv, Owners.csv, Monday Dogs.csv, Westwood Test Plan.rtf, and Cambridge National IT J836 specification pages 26–32. This original teacher guide is not an OCR grading decision.