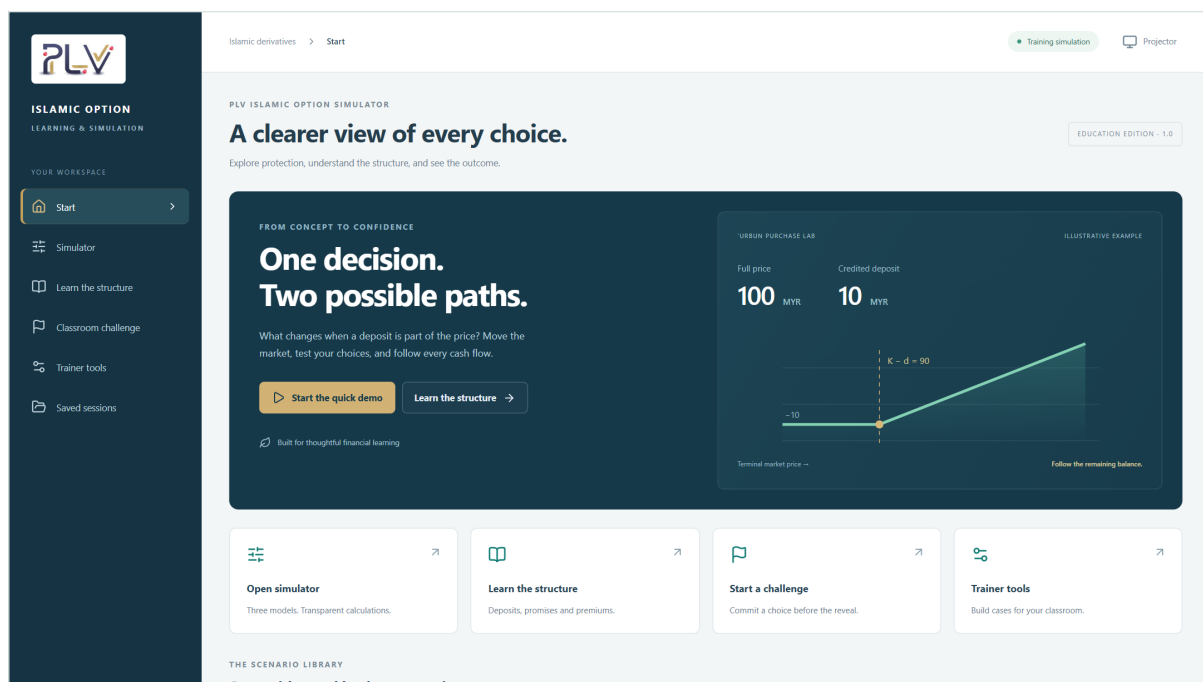


PLV LEARNING LAB

Islamic Option Manual Version 1.0

PLV Islamic Option Simulator

Follow the deposit. Compare the choices.
Make a decision you can explain.



A practical guide for beginners and trainers

Start with 1,000 components, a MYR 100 full sale price and a MYR 10 credited deposit. Follow completion or withdrawal, compare conceptual currency protection and a conventional benchmark, then run a scored classroom challenge. Worked exercises and answers are included.

PLV Advance Business Consulting Sdn Bhd

Trainer: Primus Lim | 3 October 2026

Manual edition 1.0. Educational examples use invented prices. The application models outcomes and cash flows; it does not execute transactions or issue Shariah certification.

01 / CONTENTS AND LEARNING OUTCOMES

Find your route

Start with pages 3-9 for the purchase lab. Explore the two comparison models on pages 10-12. Trainers can then use pages 14-19. Click a page number or use the PDF bookmarks.

Topic	Page	Topic	Page
Launch / workspace	3-4	Reading outputs	13
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Choose a practical learning route

1. First-time user. Launch the app, complete the quick demo, and reproduce the MYR 120, 80 and 95 examples. Trace both the earlier deposit and the remaining payment.

2. Treasury learner. Change coverage, distinguish importer costs from exporter receipts, and compare exercise value with net profit or loss.

3. Classroom trainer. Prepare a case, disclose the policy, lock commitments, reveal the market, and assess reasoning separately from hindsight benefit.

By the end, you should be able to

Explain the business exposure; identify the units; calculate combined cost or receipts; distinguish a credited deposit from a separate premium; and justify a choice within the stated model assumptions.

Print page 21 for participants and keep page 22 as the answer guide. Keep the simulator open alongside this manual.

02 / GETTING STARTED

Launch the simulator

1. Open the project folder. In File Explorer, open the existing **PLV Islamic Option** folder at the location below.

Project location

C:\Users\Asus\OneDrive\Desktop\
PLV Software Projects\28-PLV Islamic Derivatives\
PLV Islamic Option

2. Double-click the START file. **START-PLV-ISLAMIC-OPTION.bat**

Run it from File Explorer. Opening the file in an editor displays its code instead of running the application.

3. Use the local browser address. **<http://127.0.0.1:4194>**

The launcher opens the default browser. Enter this address in Microsoft Edge or Google Chrome if the browser does not open automatically.

4. Keep the server window open. Leave the launcher window running during the lesson. To stop the simulator, close that window or press **Ctrl+C** in it.

On this computer

The production build is ready. Normal startup needs no internet, account or subscription. The local service is accessible only on this computer. External reference links still need internet.

First setup on another Windows computer

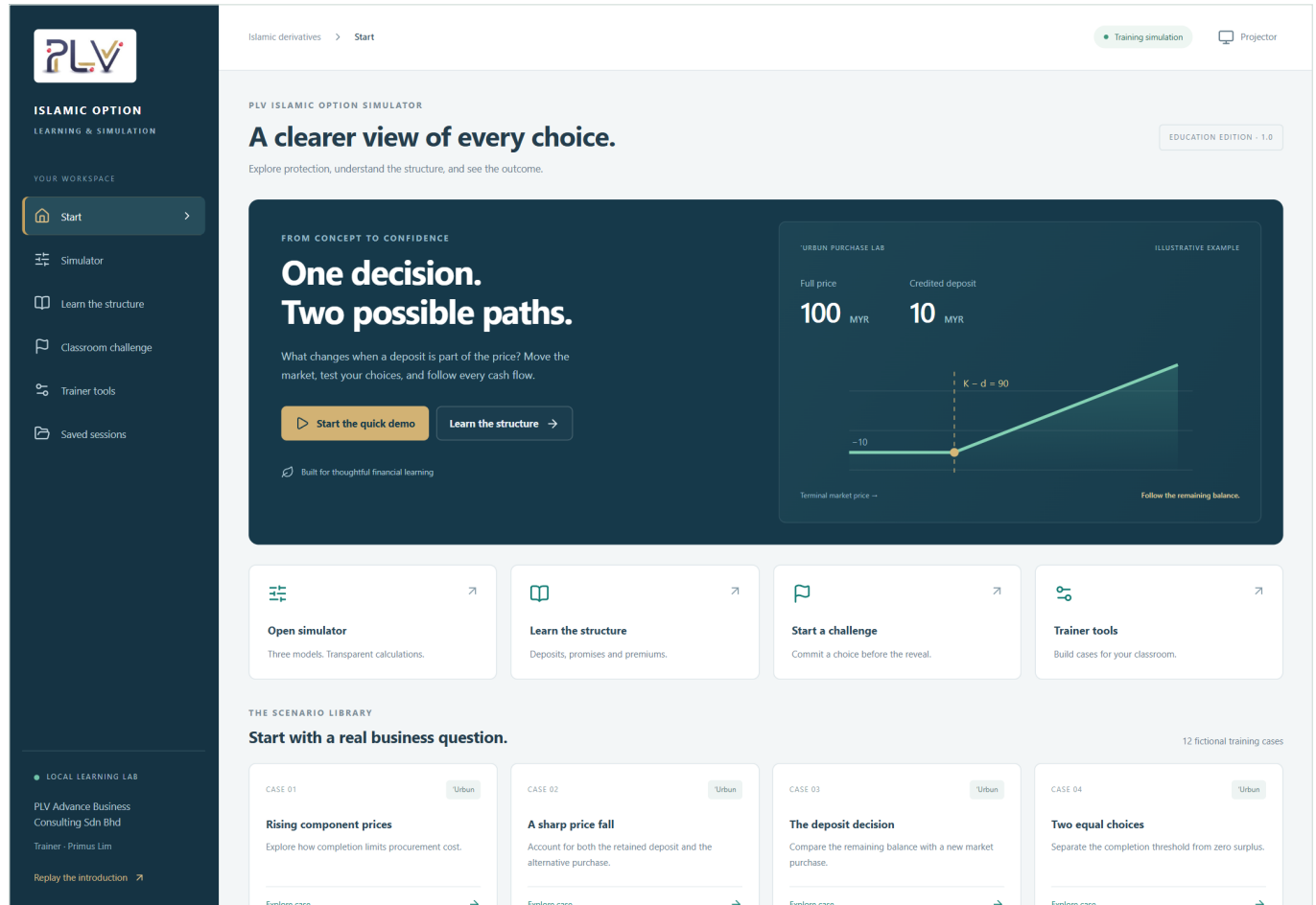
Copy the complete project folder. Install Node.js 22.12 or later with npm and PATH enabled if no suitable runtime is available. Double-click **SETUP-PLV-ISLAMIC-OPTION.bat** to install dependencies, build and check the app. Initial dependency installation needs internet. Then use the START file.

Keep the address consistent

Use 127.0.0.1:4194 each time. Another browser, another profile or localhost:4194 has separate saved data. Export a JSON backup before switching environments.

03 / WORKSPACE TOUR

Find your way around



The Start page introduces the purchase lab and links to the learning tools. Scroll down to see all 12 starter cases.

Section	Use it to...
Start	Run the quick demo, choose a business case, or replay the introduction.
Simulator	Change assumptions; inspect decisions, charts, calculations and cash flows.
Learn the structure	Follow the purchase stages, order the steps, and answer knowledge checks.
Classroom challenge	Lock team commitments, reveal the market and score final decisions.
Trainer tools	Duplicate and edit cases; use the five-minute timer.
Saved sessions	Reopen explorations, compare results, and export or restore a backup.

The header Projector control enlarges the interface. On a narrow screen, open the navigation menu to switch pages.

04 / CORE CONCEPTS

Keep models and units distinct

Mode	Business question	What is paid initially
'Urbun Purchase Lab	Complete an identified physical-goods purchase or withdraw and buy elsewhere?	A deposit credited to the full sale price when completed.
Wa'd Protection Lab	Elect a conceptual subsequent FX transaction or use the market?	No consideration or commercial pricing is modeled.
Conventional Option Benchmark	Exercise a long call or put at expiry?	A separate premium; it is not part of the strike.

Read the input symbols

Symbol	Meaning	Default purchase example
N	Total business requirement	1,000 components
Q	Covered quantity, from zero to N	1,000 components
K	Full sale price; strike in the other modes	MYR 100 per component
d / p	Credited deposit / separate option premium	d = MYR 10 per component
S / X	Terminal goods price / terminal FX quote	S = MYR 120 per component
Q / N	Coverage fraction	1,000 / 1,000 = 100%

The FX quote has units

X = MYR per ONE unit of foreign currency.

At X = 4.50, USD 1,000,000 equals MYR 4,500,000. Never add a USD quantity directly to a MYR payment.

The Wa'd examples use USD; SGD and EUR are also available as synthetic assumptions.

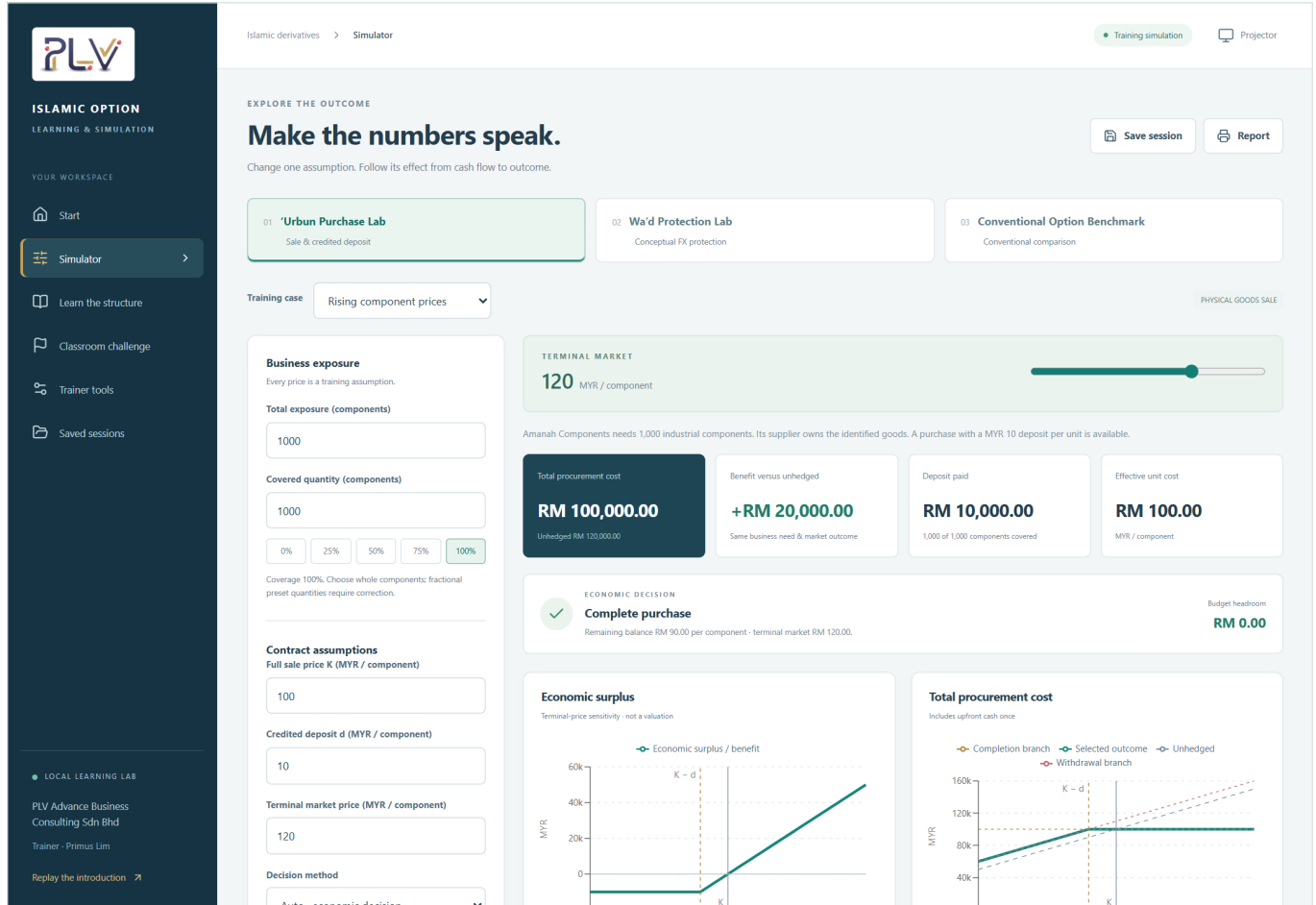
Interpret signs and totals

RM on the screen means MYR. Headline procurement costs are positive payment amounts. Signed ledger payments are negative and receipts positive. Foreign currency or goods quantities appear in their own asset column. A benefit is a comparison with the unhedged outcome, not an extra receipt.

Switching modes loads that mode's own inputs. Dates label the teaching timeline; changing them does not reprice a contract. The model is terminal-only and undiscounted.

05 / FIVE-MINUTE WALKTHROUGH

Set up your first exploration



Default rising-price case: full coverage, MYR 100 full price, MYR 10 deposit and MYR 120 terminal market.

- 1. Start the quick demo.** From Start, select **Start the quick demo**. Keep 1,000 total and covered components, full price 100 and credited deposit 10.
- 2. Follow all three examples.** At market 120, complete. Choose **Next example** for market 80, then again for 95. Read the decision and total each time. Select **Finish demo**.
- 3. Change one assumption.** Try the **50%** coverage button. Use **Decision method** to select a manual action and compare its Decision cost with the automatic economic choice.
- 4. Explain and retain the result.** Scroll to **Show calculation** and **Cash & asset ledger**. Choose **Save session**, enter a name and rationale, then **Save exploration**.

Numeric edits may change the case selection to Current custom assumptions. Reload a named Training case to restore that case's original inputs. An invalid input pauses results until corrected.

06 / ONE DEPOSIT AND TWO POSSIBLE PATHS

Follow the purchase cash flows

Amanah needs 1,000 components. Full coverage means $Q = N = 1,000$. The supplier owns the identified goods. The simplified economic ledger abstracts detailed title, possession and risk terms.

1. Initial deposit

CUSTOMER

CONTRACTED SUPPLIER

_____ MYR 10,000 _____>

1,000 x MYR 10. This earlier payment appears once in either eventual path.

2A. Complete at market 120

CUSTOMER

CONTRACTED SUPPLIER

_____ MYR 90,000 remaining balance _____>

1,000 x (100 - 10). Supplier delivers 1,000 goods to the customer. Total cash paid: MYR 100,000.

2B. Withdraw at market 80

CUSTOMER

MARKET SUPPLIER

_____ MYR 80,000 replacement purchase _____>

Contracted supplier retains the earlier MYR 10,000. Customer buys 1,000 goods elsewhere. Total cost: MYR 90,000.

Choose one terminal path

Completion and withdrawal are alternatives. Do not add both. On completion, do not charge the deposit again on top of the full price. On withdrawal, the business still needs all N components.

Supplier receipts are cash receipts, not profit: the simulator does not model the supplier's cost of goods. The benefit calculation is not a separate cash transfer.

07 / WORKED PURCHASE EXAMPLES

Test three market outcomes

Keep $N = Q = 1,000$ components, $K = \text{MYR } 100$ and $d = \text{MYR } 10$ per component. Use the automatic economic decision. Amounts below are MYR.

Terminal S	Action	Combined cost	Unhedged cost	Benefit
120	Complete	100,000	120,000	20,000
80	Withdraw	90,000	80,000	-10,000
95	Complete	100,000	95,000	-5,000

At 120 complete the purchase

Deposit: $1,000 \times 10 = \mathbf{10,000}$.

Remaining payment: $1,000 \times (100 - 10) = \mathbf{90,000}$.

Combined cost: $10,000 + 90,000 = \mathbf{100,000}$.

Benefit: $120,000 - 100,000 = \mathbf{20,000}$.

At 80 withdraw and buy elsewhere

Earlier deposit retained: $\mathbf{10,000}$.

Replacement purchase: $1,000 \times 80 = \mathbf{80,000}$.

Combined cost: $10,000 + 80,000 = \mathbf{90,000}$.

Benefit: $80,000 - 90,000 = \mathbf{-10,000}$.

At 95 completion is still cheaper

Complete for a total of $\mathbf{100,000}$, or withdraw and pay $10,000 + 95,000 = \mathbf{105,000}$. The deposit has already been paid. At the decision point, compare the remaining MYR 90 per unit with buying elsewhere for MYR 95.

A good remaining decision can have negative overall surplus

Completion at 95 loses MYR 5,000 against the unhedged alternative, yet withdrawal would lose MYR 10,000. Choosing Manual withdrawal creates a Decision cost of MYR 5,000 relative to the automatic choice.

General purchase formulas

Complete: $Q \times K + (N - Q) \times S$.

Withdraw: $Q \times d + N \times S$.

Unhedged: $N \times S$. **Benefit:** unhedged cost - selected combined cost.

Effective unit cost: selected combined cost / N .

08 / THE REMAINING BALANCE MATTERS

Separate threshold and coverage

Two price levels serve different purposes

Completion threshold: $K - d = 90$. Complete above 90; withdraw below 90. At 90 both cost the same and Auto displays completion with an indifference note.

Zero-surplus price: $K = 100$. This is where the completed purchase equals the market alternative.

At $S = 90$, either full-coverage path costs MYR 100,000 versus MYR 90,000 unhedged. Benefit is -10,000. At $S = 100$, completion costs MYR 100,000 and benefit is zero.

Compare coverage at market 120

Coverage	Q components	Deposit MYR	Cost MYR	Benefit MYR
0%	0	0	120,000	0
25%	250	2,500	115,000	5,000
50%	500	5,000	110,000	10,000
75%	750	7,500	105,000	15,000
100%	1,000	10,000	100,000	20,000

At 50%, pay MYR 5,000 deposit + MYR 45,000 remaining balance + MYR 60,000 for 500 uncovered goods = **MYR 110,000**. Half the requirement remains exposed.

Now use market 80

At 50% coverage, withdraw: deposit $500 \times 10 = 5,000$, then purchase all 1,000 goods for 80,000. Total is **85,000**; benefit is **-5,000**. At 0% coverage, no deposit or contract flow exists: the outcome is the market purchase alone.

Change the deposit deliberately

The Deposit sensitivity case compares $d = 5, 10$ and 20 at $K = 100, S = 95$. Thresholds become 95, 90 and 80. Full-coverage cost remains 100,000 in these three examples, but upfront cash and withdrawal losses differ. These are arbitrary training offers, not a calibrated pricing model.

Goods quantities must be whole components. A percentage button that implies a fraction requires correction. A zero deposit is labeled as a mathematical boundary case.

09 / CONCEPTUAL WA'D MODEL

Protect an importer payment

Select **Wa'd Protection Lab** and an importer exposure, or load **Importer: MYR weakens**. The customer needs USD 1,000,000. Full coverage $Q = \text{USD } 1,000,000$ and $K = \text{MYR } 4.50$ per USD.

Promise first then an elected exchange

The provider is assumed to make the promise. At the modeled deadline, the customer may elect the subsequent currency transaction. The lab has no initial exchange and does not model consideration or commercial pricing. This is conceptual economics, not a verified bank product.

MYR weakens and the market reaches 4.80

Item	MYR amount
Market purchase: $\text{USD } 1,000,000 \times 4.80$	4,800,000
Elected exchange: $\text{USD } 1,000,000 \times 4.50$	4,500,000
Benefit versus unhedged	300,000

Customer pays **MYR 4,500,000** and receives **USD 1,000,000**. The MYR 300,000 benefit is already reflected in paying less; it is not an extra receipt from the provider.

At 50% coverage

Covered $\text{USD } 500,000 \times 4.50 = \text{MYR } 2,250,000$.

Uncovered $\text{USD } 500,000 \times 4.80 = \text{MYR } 2,400,000$.

Combined cost = **MYR 4,650,000**; benefit = **MYR 150,000**.

MYR strengthens and the market reaches 4.20

The automatic choice is no election. Buy USD 1,000,000 at market for **MYR 4,200,000**. With no modeled fee, benefit versus unhedged is zero. A manual election would cost MYR 4,500,000, adding MYR 300,000 of Decision cost.

Importer rule

Elect when $X > K$. With automatic choice:

Combined cost = $N \times X - Q \times \max(X - K, 0)$.

If elected manually: $Q \times K + (N - Q) \times X$. If not elected: $N \times X$. At equality both actions have the same economic result.

10 / REVERSE THE BUSINESS EXPOSURE

Protect an exporter receipt

Load **Exporter: MYR strengthens**, or choose exporter in the Wa'd lab. The customer will sell USD 1,000,000. Keep $K = \text{MYR } 4.50 \text{ per USD}$ and full coverage.

MYR strengthens and the market falls to 4.20

Item	MYR amount
Market sale: USD 1,000,000 x 4.20	4,200,000
Elected exchange: USD 1,000,000 x 4.50	4,500,000
Benefit versus unhedged	300,000

Customer delivers **USD 1,000,000** and receives **MYR 4,500,000**. The benefit is the improvement in sale receipts. It is not another cash settlement.

At 50% coverage

Covered USD 500,000 x 4.50 = MYR 2,250,000.

Uncovered USD 500,000 x 4.20 = MYR 2,100,000.

Combined receipts = **MYR 4,350,000**; benefit = **MYR 150,000**.

If the market instead rises to 4.80

The automatic choice is no election. Sell USD 1,000,000 at market and receive **MYR 4,800,000**. A manual election at 4.50 would give up MYR 300,000 of receipts.

Exporter rule

Elect when $X < K$. With automatic choice:

Combined receipts = $N \times X + Q \times \max(K - X, 0)$.

Benefit = selected receipts - unhedged receipts. At equality both actions have the same economic result.

Exposure	Adverse market move	Automatic election
Importer pays foreign currency	X rises: more MYR needed	X above K
Exporter receives foreign currency	X falls: fewer MYR received	X below K

Costs and receipts require opposite benefit comparisons. Currency presets are teaching assumptions, not current quotations. Changing currency means reviewing the full business story and inputs. The omitted commercial pricing is a material limit of this lab.

11 / CONVENTIONAL COMPARISON ONLY

Keep premium separate from strike

Select **Conventional Option Benchmark**. This is a long European call or put evaluated at expiry. It is explicitly a conventional comparison. For goods, use $N = Q = 1,000$, strike $K = 100$ and separate premium $p = 10$.

Position and market	Gross payoff	Net option P&L	Combined outcome
Call at $S = 120$	20,000	10,000	Cost 110,000
Call at $S = 105$	5,000	-5,000	Cost 110,000
Call at $S = 80$	0	-10,000	Cost 90,000
Put at $S = 80$	20,000	10,000	Receipts 90,000
Put at $S = 120$	0	-10,000	Receipts 110,000

All amounts are MYR. Combined outcomes include the full underlying business requirement and the premium paid once. Calls use the buyer exposure; puts use the seller exposure.

Why exercise a call with a net loss

At $S = 105$, exercise realizes $1,000 \times (105 - 100) = \mathbf{5,000}$. After the earlier 10,000 premium, net option P&L is **-5,000**. Lapsing would discard the 5,000 exercise value. The premium is already paid.

Calculate the two layers

Call gross: $Q \times \max(S - K, 0)$. **Put gross:** $Q \times \max(K - S, 0)$.

Net option P&L: selected payoff - $Q \times p$.

Buyer cost: $N \times S$ - selected payoff + $Q \times p$.

Seller receipts: $N \times S$ + selected payoff - $Q \times p$.

Selected payoff is gross payoff if exercised; zero if not exercised.

Break-even differs from exercise

With a positive premium, call net P&L breaks even at $K + p$; put net P&L at $K - p$ when that price is in the valid domain. Exercise becomes beneficial above K for a call and below K for a put. At K , either action has zero gross value.

A matching curve needs a different strike

For the purchase lab with $K = 100$ and $d = 10$, the matched conventional comparison has **strike 90 and premium 10**. Learn the structure provides a button to open it. Matching a terminal curve does not establish the same contract or Shariah treatment.

IIFA Resolution 63 rejects the conventional option contracts it describes; see source 2 on page 23. The benchmark is used here to explain mechanics.

12 / CHARTS CALCULATIONS AND REPORTS

Read results without double counting

On-screen output	How to interpret it
Total cost / receipts	Whole business outcome, including covered and uncovered quantities and any modeled upfront payment.
Benefit versus unhedged	Buyer: unhedged cost minus selected cost. Seller: selected receipts minus unhedged receipts. A negative benefit is a worse realized outcome.
Deposit / premium paid	Q times the per-unit deposit or premium. These have different contractual roles.
Effective unit cost / receipts	Combined total divided by the whole business quantity N.
Budget headroom	Favorable amount against the budget or receipts target; a negative number indicates a shortfall or overrun.
Decision cost	Incremental cost or lost receipts of the selected manual action relative to the automatic economic action.

Use the charts to test a relationship

The surplus or option P&L chart shows a terminal-price relationship, not a fair-value history. The total cost or receipts chart shows the whole exposure. Open **Chart range & accessible data table** for exact values or to adjust the range. Coverage comparison holds the terminal market fixed and uses the selected decision method.

Reconcile the ledger

Open **Show calculation** to see substituted inputs. In **Cash & asset ledger**, payments are negative and receipts positive. Inspect each counterparty and goods or currency quantity. An FX reporting benefit is not a second payment. The conventional ledger uses market underlying cash flows plus the option payoff; do not add a second physical exercise transaction.

Export a record

1. Use CSV. The coverage table and cash ledger each have a **CSV** button. Their exports include units and signed amounts. Downloads go to the browser's chosen download location.

2. Use a printable report. Select **Report**, then **Print / Save as PDF**. In the browser dialog, choose A4 landscape and inspect the preview. A saved exploration also has a Report button.

A report or CSV records results. Use a full JSON backup to transfer editable saved work. This manual itself is A4 portrait.

13 / LEARNING ACTIVITIES

Explain the structure and its limits

Open **Learn the structure**. Use **Next step** or the four stage buttons to explain the purchase model before showing the chart.

- 1. Identify the business need.** Amanah needs 1,000 industrial components. The supplier already owns the identified goods. The example abstracts detailed title, possession and risk allocation.
- 2. Explain the sale and deposit.** The customer pays MYR 10 per covered component toward a full sale price of MYR 100, with a fixed deadline. The credited-deposit illustration draws on IIFA Resolution 72.
- 3. Compare remaining cash.** At the deadline, compare the remaining MYR 90 with the market purchase price. This remaining-balance decision is a derived economic result of the model.
- 4. Trace goods and final payment.** Completion brings goods to the customer with only the balance paid. Withdrawal retains the earlier deposit with the contracted seller and requires an alternative purchase.

Complete the learning activities

In **Put the stages in order**, select: sale / deposit; observe terminal market; choose completion or withdrawal; settle / acquire required goods. Select **Check order**. The eight knowledge checks provide feedback immediately after an answer is selected.

Same curve does not mean the same contract

Per covered unit, automatic purchase surplus is $\max(S - K, -d)$. This equals $\max(S - (K - d), 0) - d$ mathematically. Deposit credit, ownership and transaction steps still differ from a separately paid conventional premium.

Boundaries of the three models

Purchase lab: physical industrial goods; currencies, gold, silver and Salam are excluded.

Wa'd lab: promise, election and subsequent exchange are separated; commercial pricing is omitted.

Benchmark: conventional comparison with separate premium and expiry payoff.

All models use synthetic terminal outcomes. They omit discounting, funding cost, taxes, dividends, storage, bid/offer spreads, default and settlement friction. Goods and currencies are assumed available. They do not calculate fair value, Greeks or early exercise, and they do not certify documentation or a product.

14 / TWELVE FICTIONAL STARTER CASES

Choose a business case

Choose a card on Start or use the Training case selector in Simulator. All companies and market assumptions are fictional. Keep other inputs fixed when isolating one learning point.

Case	Key assumption	Discuss
Rising component prices	Urbun; S = 120	Complete and limit procurement cost.
A sharp price fall	Urbun; S = 80	Include retained deposit and replacement purchase.
The deposit decision	Urbun; S = 95	A negative surplus can still favor completion.
Two equal choices	Urbun; S = 90	Decision threshold differs from zero surplus.
Half protected	Urbun; Q = 500, S = 120	Uncovered quantities still face market prices.
Deposit sensitivity	Urbun; S = 95	Compare d = 5, 10 and 20 as arbitrary offers.
Importer: MYR weakens	Wa'd; USD, X = 4.80	Higher X increases the MYR purchase cost.
Exporter: MYR strengthens	Wa'd; USD, X = 4.20	Lower X reduces the MYR sale receipts.
A favorable FX move	Wa'd importer; X = 4.20	No election preserves the better market result.
Exercise with a net loss	Call; K = 100, p = 10, S = 105	Exercise value and net P&L are different.
Conventional put protection	Put; K = 100, p = 10, S = 80	Receipts include payoff less premium.
No coverage baseline	Urbun; Q = 0	No contract flow; only the business exposure.

Compare like with like

Save the first exploration before changing the next assumption. The Saved decision comparison can contain different market outcomes and is not a strategy ranking. Challenge outcomes are predetermined and do not improve because of a team's chosen coverage.

Changing a case in the simulator is an exploration. To retain a reusable scenario with its own brief and learning objective, use Trainer tools and Save custom case.

15 / RUN A CLASSROOM CHALLENGE

Commit first then reveal

1. Create a session. Open **Classroom challenge**. Enter 1-12 team names, one per line. Choose 1-12 independent rounds and a case for each. Enter the disclosed minimum and maximum coverage policy. Select **Start classroom session**.

2. Read the disclosed brief. Review the business exposure, initial reference, full price / strike, budget or target, dates, available offers and published scoring rubric. The terminal market remains hidden.

3. Lock every commitment. Select each team tab. Enter **Team covered quantity**, an available unit deposit / premium where applicable, the rationale and four knowledge answers. Choose **Lock commitment**. Repeat for every team.

Committed terms stay fixed

Coverage, selected financial terms and commitment answers cannot be changed after locking. The Wa'd lab displays Not modeled for consideration. A benchmark case offers its configured premium; the purchase lab can offer several valid deposits.

4. Reveal the terminal market. After all teams commit, select **Trainer: reveal outcome**. Every team in that round receives the same predetermined market outcome. Automatic advice remains hidden.

5. Lock final decisions. For each team, select **Team final action**. Enter the combined cost or receipts and benefit versus unhedged for that selected action. Choose **Lock final decision**.

6. Debrief and mark. After all final decisions are locked, choose **Trainer: open debrief**. Review automatic marks, select each team, and save its four rationale marks. Use **Team report** for a record.

7. Continue or finish. Mark and print all teams before **Next independent round**. Earlier rounds remain in a summary; the interface does not reopen their marking form. After the last round, export a full JSON backup from Saved sessions.

Use Print classroom worksheet / current stage for the current information. Reset classroom session requires confirmation. Challenge state saves locally as you work; this shared-laptop activity is not a secure examination system.

16 / TRANSPARENT ASSESSMENT

Mark reasoning and calculations

Automatic component	Marks	How it is assessed
Four knowledge questions	40	10 marks each.
Policy compliance	10	Coverage inside the disclosed policy and exposure.
Economic action	10	Cheaper buyer action or better seller receipts; either at indifference.
Combined result	10	Correct total for the team's selected action; MYR 0.01 tolerance.
Benefit versus unhedged	10	Correct comparison for that action; MYR 0.01 tolerance.
Automatic subtotal	80	Realized benefit is displayed separately.

Trainer rationale marks

Criterion	Evidence to look for
Exposure	Identifies goods or currency, quantity, timing and payment direction.
Objective	Connects coverage to the business need and budget or target.
Tradeoff	Explains upfront cash, uncovered risk, withdrawal or forgone opportunity.
Model limitations	Names a relevant simplification and distinguishes economics from contract approval.

Each criterion receives 0-5: **0** absent, **1** weak, **2** partial, **3** adequate, **4** clear, **5** complete and case-specific. Choose **Save rationale marks** for each team.

Example score

Automatic 80 + exposure 5 + objective 4 + tradeoff 4 + model limitations 5 = **98 / 100**. Unsaved rationale is Pending, not zero. A correctly calculated manual action can earn the numerical marks even when the action itself is economically inferior.

Debrief without hindsight bias

What did the team know at commitment? What cash was already paid? What quantity remained uncovered? Did the action meet the disclosed policy? Why is a benefit figure not another payment? What contractual facts does this model leave unresolved?

Do not rank understanding solely by realized gain. A favorable market can reward an unhedged exposure without proving the original decision was well reasoned.

17 / TRAINER PLAYBOOK

Plan and control a class

Minutes	Activity	Observable outcome
0-5	Define exposure and run quick demo.	Learners separate the deposit from the remaining payment.
5-12	Use market 120, 80 and 95; vary coverage.	Learners reconcile total cash and explain the threshold.
12-18	Use the structure lesson and benchmark.	Learners distinguish a deposit, promise and premium.
18-25	Run one challenge round.	Teams commit reasoning before the market is revealed.
25-30	Mark and debrief.	Teams explain decisions and model limits.

Prepare a custom scenario

- 1. Choose and duplicate.** In **Trainer tools**, use **Choose a case**, then **Duplicate & edit**. Built-in cases remain unchanged.
- 2. Edit the teaching story.** Enter the custom name, business brief, learning objective and debrief questions. Adjust the validated financial inputs beside them. Keep currency, quantity, direction and budget consistent with the story.
- 3. Save and inspect.** Choose **Save custom case**, then **Explore**. Test both a favorable and adverse market, partial coverage and a manual action before using it in class.
- 4. Keep versions and share.** **Edit custom** increments the case version. Existing challenge snapshots retain their earlier terms. **Export scenario** creates a single-case JSON file. **Import scenario** validates a file up to 200 KB and opens a draft for review before saving.

Use the presentation controls

Projector enlarges the interface. The five-minute timer supports start, pause and reset; audio is off. The timer is a display aid and does not lock a decision or reveal a market automatically. Returning to a page can reset its timer, so keep the current view open when timing an activity.

Before participants arrive

Open the launcher and browser, rehearse the chosen case, check the print preview, and export a backup of any existing classroom work before resetting. Make sure the coverage policy and rubric are explained before commitments.

18 / KEEP THE LEARNING RECORDS

Save transfer and restore

Save an exploration

In Simulator choose **Save session**, enter a Session name and Decision rationale, then **Save exploration**. Saved sessions offers Open, Duplicate, Report and Delete. Two or more saves produce a comparison table. The app permits up to 100 explorations and 100 custom cases.

Make a portable backup

- 1. Export the workspace.** Open **Saved sessions** and choose **Export full JSON backup**. It contains saved explorations, custom cases and the current challenge, including recorded rounds. Save the downloaded file to a folder you can find.
- 2. Import and review.** Choose **Import backup**. The app checks format, model version and financial inputs, with a 2 MB file limit. A Replacement preview shows the numbers of sessions, cases and rounds.
- 3. Confirm replacement deliberately.** Export the current workspace first if you want to keep it. Choose **Replace with this backup**, then confirm. The import replaces the saved workspace; it does not merge it. Cancel import leaves current work intact.

Browser saves are not OneDrive files

Saved data belongs to the exact address and browser profile. Using a different browser, private window or localhost address may show different data. OneDrive synchronizes project files; it does not automatically synchronize this browser's saved workspace.

Recover after a storage problem

If the app reports unreadable stored data, open Saved sessions and use **Export original data** before replacing anything. Saving is blocked to preserve that original text. Restore a valid backup, or choose **Enable saving** and confirm replacement with the current workspace. Keep the recovery file for diagnosis.

If a storage-capacity warning appears, export the latest full JSON backup before closing. Do not assume a failed save succeeded. Save a working simulator exploration explicitly before exporting; an unsaved exploration is not a named saved session.

The examples folder includes a valid scenario, backup and cash-flow CSV. Use them as training samples; importing the example backup replaces the current workspace after confirmation.

19 / PRACTICAL SUPPORT

Troubleshoot common problems

Symptom	What to do
The BAT file shows code.	Double-click START-PLV-ISLAMIC-OPTION.bat in File Explorer, rather than opening it in an editor.
Browser cannot connect.	Keep the server window open. Use http://127.0.0.1:4194. Read the launcher error, then retry START.
Port 4194 is occupied.	A repeat launch reuses the same app. An unrelated service is rejected; close that service yourself before starting this one.
Build or dependencies are missing.	Use SETUP-PLV-ISLAMIC-OPTION.bat, with internet for initial installation. Keep the source, scripts, assets and lockfile together.
Saved work seems missing.	Check browser, profile and exact address. Restore a previously exported JSON backup when changing environments.
Results pause after editing.	Correct the displayed input error. Check units, positive prices, whole goods quantities, coverage and valid dates.
Reveal or debrief is disabled.	Reveal requires every team commitment; debrief requires every team final decision. Select each team tab to finish.
Score still says Pending.	Select every team and save all four rationale marks before moving to the next round.
Backup or scenario import fails.	Use the correct importer and a compatible JSON file. Backup limit is 2 MB; single scenario limit is 200 KB. No replacement occurs on rejection.
Report or download is blocked.	Use normal Edge or Chrome. Inspect browser download and print controls; choose A4 landscape for app reports.

Review assumptions before results

Require $0 \leq Q \leq N$ and N positive. In the purchase lab, the credited deposit must be below the full price. Use the screen's validation messages for the precise permitted range. A boundary case such as zero deposit needs the displayed model note.

Preserve your learning materials

Keep the original build prompt and neighboring projects. Store JSON backups separately from the browser. The application has no live market feed, trading account or execution connection.

20 / INDIVIDUAL OR TEAM ACTIVITY

Practice worksheet

Name / team: _____ Date: _____

Use $N = Q = 1,000$ components, full price $K = 100$ and credited deposit $d = 10$ unless a question changes them.
Give all goods-case monetary answers in MYR.

01 Prices rise

At $S = 120$, calculate the deposit, remaining payment, total cost and benefit versus unhedged.

02 Prices fall

At $S = 80$, choose an action and calculate total cash paid. Does the customer still need replacement goods?

03 The remaining decision

At $S = 95$, compare both totals. Find the threshold. Are the choices equal at 90? Find the zero-surplus price.

04 Partial coverage

At $S = 120$, cover 500 components. Find the deposit, remaining payment, uncovered cost, total and benefit.

05 Currency protection

Use $N = Q = \text{USD } 1,000,000$, $K = 4.50 \text{ MYR/USD}$. Find importer cost at $X = 4.80$ and exporter receipts at 4.20. Give benefits and actual currency exchanges.

06 Premium and reasoning

Call: $N = Q = 1,000$, strike 100, premium 10, $S = 105$. Find gross payoff, net P&L; and combined cost. Why exercise? Does a matching curve establish the same contract?

Extension: choose a coverage policy and defend a commitment before seeing the terminal market. Answers are on the next page.

21 / WORKSHEET DEBRIEF

Worked answers

1 Prices rise

Deposit = $1,000 \times 10 = 10,000$. Remaining payment = $1,000 \times 90 = 90,000$. Complete for **100,000**. Unhedged cost = $1,000 \times 120 = 120,000$. Benefit = **20,000**.

2 Prices fall

Withdraw. The earlier **10,000** deposit is retained. Buy all 1,000 required goods at 80 for **80,000**. Total = **90,000**; benefit = $80,000 - 90,000 = -10,000$. The business requirement does not disappear on withdrawal.

3 The remaining decision

At 95: completion = **100,000**; withdrawal = $10,000 + 95,000 = 105,000$. Complete because remaining 90 is below market 95. Threshold = **K - d = 90**. At $S = 90$, either total is **100,000** and benefit is **-10,000**. Zero surplus is at **S = K = 100**, a different level.

4 Partial coverage

Deposit = $500 \times 10 = 5,000$. Remaining contracted payment = $500 \times 90 = 45,000$. Uncovered market purchase = $500 \times 120 = 60,000$. Combined cost = **110,000**; benefit = $120,000 - 110,000 = 10,000$.

5 Currency protection

Importer at 4.80: elect, pay MYR **4,500,000** and receive USD **1,000,000**. Unhedged cost MYR 4,800,000; benefit MYR **300,000**.

Exporter at 4.20: elect, deliver USD **1,000,000** and receive MYR **4,500,000**. Unhedged receipts MYR 4,200,000; benefit MYR **300,000**. Neither benefit is an additional payment.

6 Premium and reasoning

Gross payoff = $1,000 \times (105 - 100) = 5,000$. Premium = **10,000**. Net option P&L = **-5,000**. Combined buyer cost = $105,000 - 5,000 + 10,000 = 110,000$. Exercise recovers value after the premium is sunk. Matching a curve does not establish the same transaction mechanics or Shariah treatment.

Extension debrief

A useful rationale identifies the exposure and objective, respects the disclosed policy, explains coverage and upfront cash, and names a relevant model limitation. Score it using page 17, separately from the realized financial benefit.

22 / FURTHER READING

References and quick glossary

Term	Meaning in this manual
'Urbun	The credited-deposit sale illustration used in the physical-goods lab.
Wa'd	An undertaking or promise, distinct from the subsequent transaction.
Coverage	Covered quantity Q divided by total business quantity N.
Remaining balance	$K - d$ per covered unit in the purchase lab.
Premium	Separate upfront consideration in the conventional benchmark.
Gross payoff / net P&L	Expiry payoff before premium / payoff less premium.
Benefit	Improvement versus the same unhedged business outcome.
Decision cost	Economic disadvantage of a manual action relative to Auto.

Primary sources and their scope

1. IIFA Resolution 72 (3/8), Bay Urbun, 27 June 1993.

[Read the official resolution](#). Supports deposit credit on completion, retention on withdrawal, a specified timeframe and exclusions including currency exchange and Salam. The lab uses identified industrial goods.

2. IIFA Resolution 63 (1/7), Financial Markets, 14 May 1992.

[Read the official resolution](#), Second: Options. The Academy rejects the conventional option contracts it describes. The comparison mode retains that conventional identity.

3. Bank Negara Malaysia, Wa'd announcement, issued 2 February 2017.

[Read the official announcement](#). Released 3 February 2017; stated effective date 1 January 2019. It summarizes Shariah and operational requirements. This manual does not infer particular product pricing or approval from that summary.

Sources checked on 3 October 2026. Detailed operative policy terms were not independently reviewed for this app. Formulas, prices, decision rules and scoring are educational model design. Contract documents, ownership, possession, risk and applicable review require separate analysis. External links need internet.

Files to keep with the application

00-OPEN-PLV-ISLAMIC-OPTION.txt gives launch steps.

01-PLV-ISLAMIC-OPTION-BUILD-PROMPT.txt preserves the original specification.

docs/FINANCIAL-METHODOLOGY.md records model conventions.

docs/TEST-RESULTS.md records application validation.

examples contains sample scenario, backup and CSV files.