

Hackathon

20250921:

When and Duration:

<https://myobconfluence.atlassian.net/wiki/spaces/BAC/pages/10713235457/Practice+Hack-athon+Hack-the-Prac>

Themes (registered projects):

<https://myobconfluence.atlassian.net/wiki/spaces/BAC/pages/10713038865/Hackathon+Themes>

Request AWS Access (request access for **AWS AI Experiment 06 Prod Developer**)<https://myob.identitynow.com/>

Create bedrock knowledgebase agent

- Create s3 bucket: **hack-aranda-tax-return-kb**
- Create Knowledge Base:
 - New role: HackarandaAmazonBedrockExecutionRoleForKnowledgeBase
 - Make sure your account has permission to create roleOnce knowledgebase is created, you need to click on Sync so it will index the document
- Test knowledge base:
 - select model
- Create Agent
 - Add agent instruction
 - **Context Awareness**
 - Always clarify the financial year when answering questions about tax returns.
 - If the user does not specify a year, ask them to clarify or provide the most recent year's return by default.
 - **Search & Retrieval**
 - Query the knowledge base by **financial year**, **document type** (return, statement, schedule), or **topic** (income, deductions, tax payable, refunds).
 - Be precise in matching terms like "FY2022," "2021–2022 tax year," or "last year's return."
 - **Response Format**
 - Summarize last financial year tax return in tax return knowledge base

- Ask user to fill all details for all questions supported by references to the questionnaire knowledge base.
- Use structured bullet points or tables when presenting amounts across years.
- **Consistency**
 - Always confirm which financial year and document the figures are sourced from.
 - Use the same financial year naming convention across the conversation (e.g., "FY2023" instead of mixing with "2022-23").
- Add knowledge base (tax return)
 - Select knowledge base
 - Add instruction
 - As a tax return agent, routes any questions related to the tax return of a specific financial year to the knowledge base
- Add knowledge base (questionnaire)
 - Select knowledge base
 - Add instruction
 - As a tax return agent, you need to form all questions for your client base on the knowledge base

Create MYOBB/SilverFin tool

- Create dynamodb: hack-aranda-myobb-silverfin-table
 - key: date
 - attributes: transactionName, amount
- Create lambda: hack-aranda-myobb-silverfin-lambda
 - Runtime: python 3.13
 - Architecture: x86_64
 - Configuration → General configuration
 - Timeout: 1 minute
 - Configuration → Permission
 - Update created role to access dynamodb: hack-aranda-myobb-silverfin-lambda-role-xyz
 - Edit the role and add permission (choose attached policies): AdministratorAccess
 - Add code to retrieve data from dynamodb
 - make sure lambda return in the format so it can send information to Bedrock Agent
 - <https://docs.aws.amazon.com/bedrock/latest/userguide/agents-lambda.html#agents-lambda-example>
 - Add lambda permission to allow Bedrock agent execute lambda
 - Resource-based policy statements → Add Permission
 - Select AWS Service

- Other
 - Statement ID:
 - myobb-silverfin
 - Principle
 - bedrock.amazonaws.com
 - Source ARN
 - Agent ARN: arn:aws:bedrock:ap-southeast-2:704029807031:agent/F95VFQLKN0
 - Action
 - lambda:InvokeFunction
- Create OpenAI schema in Bedrock Agent to communicate with lambda
 - Bedrock → Agents → Add Action Group
 - Name: hack-aranda-action-group-myobb-silverfin
 - Description: Check if there are transactions in myobb and silverfin
 - Action group type: Define with API schemas
 - Action group invocation: Select an existing lambda: hack-aranda-myobb-silverfin-lambda
 - Action group schema: Define via in-line schema editor

Agent Component	AWS Service	Service Name	Description
Agent	AWS Bedrock Agent	hack-aranda-tax-agent	
Storage	S3 bucket with Tax Return pdf	hack-aranda-tax-return-kb	
Tool 1	Bedrock Knowledge bases	hack-aranda-knowledge-base-tax-return	
Storage	S3 bucket with Questionnaire pdf	hack-aranda-questionnaire-kb	
Tool 2	Bedrock Knowledge bases	hack-aranda-knowledge-base-questionnaire	
Backend	DynamoDb	hack-aranda-myobb-silverfin-table	MYOBB/SilverFin transaction
Tool 3 (Action Group 1)	Action Group 1 - AWS Lambda - OpenAPI schema	hack-aranda-myobb-silverfin-lambda	

DynamoDB - myobb-silverfine-table

date	transactionName	amount	hasReceipt
2025-01-15	Buy a car	45000	yes
2025-02-16	Buy a laptop	3000	no

Checklist and questionnaire - documents require practice's client?

How accountant review last year tax return?

- it is pdf file stored in Document Manager, ATO pdf submit file, or MYOB AEAO

