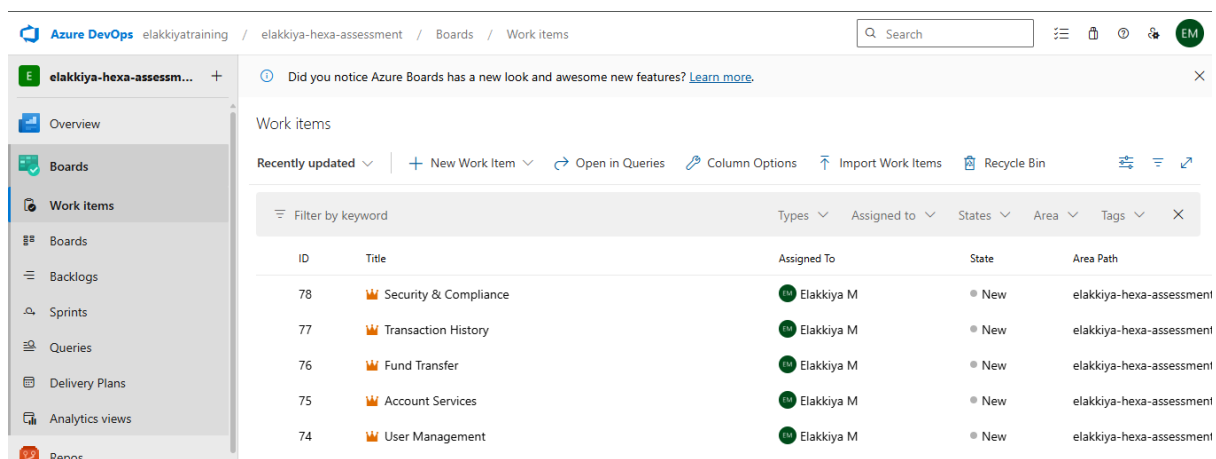# Azure DevOps Assessment 1

Banking Application

PART 1 - Work Item Breakdown

1. ## Create Epics

   - User Management

   - Account Services

   - Fund Transfer

   - Transaction History

   - Security & Compliance

2. ## Under Each Epic, Create Features

   Features under User Management:

Features under Account Services:

	ID	Title		Assigned To	State	Area Path
✓	83	🏆 View Account Balance	⋯	🟢 Elakkiya M	● New	elakkiya-hexa-assessmer
	82	🏆 Account Creation		🟢 Elakkiya M	● New	elakkiya-hexa-assessmer

Features under Fund Transfer:

	Filter by keyword			Types ⌄	Assigned to ⌄	States ⌄	Area ⌄	Tags ⌄	✕
	ID	Title		Assigned To	State	Area Path			
✓	86	🏆 Scheduled Transfers	⋯	🟢 Elakkiya M	● New	elakkiya-hexa-assessme			
	85	🏆 Other Bank Transfer		🟢 Elakkiya M	● New	elakkiya-hexa-assessme			
	84	🏆 Within Bank Transfer		🟢 Elakkiya M	● New	elakkiya-hexa-assessme			

Features under Transaction History:

Recently created ⌄   + New Work Item ⌄   ↪ Open in Queries   🔗 Column Options   ↑ Import Work Items   🗑 Recycle Bin   ⚙ ⫶ ⤢

	Filter by keyword			Types ⌄	Assigned to ⌄	States ⌄	Area ⌄	Tags ⌄	✕
	ID	Title		Assigned To	State	Area Path			
✓	89	🏆 Search & Filter Transactions	⋯	🟢 Elakkiya M	● New	elakkiya-hexa-assessme			
	88	🏆 Export/Download Statement		🟢 Elakkiya M	● New	elakkiya-hexa-assessme			
	87	🏆 View Transaction History		🟢 Elakkiya M	● New	elakkiya-hexa-assessme			

Features under Security & Compliance:

Work items

Recently created ⌄   + New Work Item ⌄   ↪ Open in Queries   🔗 Column Options   ↑ Import Work Items   🗑 Recycle Bin

	Filter by keyword			Types ⌄	Assigned to ⌄	States ⌄	
	ID	Title		Assigned To	State	Area Path	
✓	92	🏆 Multi-Factor Authentication	⋯	🟢 Elakkiya M	● New	elakkiya-hexa-assessment	
	91	🏆 Audit Logging		🟢 Elakkiya M	● New	elakkiya-hexa-assessment	
	90	🏆 Data encryption		🟢 Elakkiya M	● New	elakkiya-hexa-assessment	

3. Break Features into User Stories

User stories under User Registration:

	Filter by keyword			Types ⌄	Assigned to ⌄	States ⌄	
	ID	Title		Assigned To	State	Area Path	
✓	94	📖 Admin Approval	⋯	🟢 Elakkiya M	● New	elakkiya-hexa-assessment	
	93	📖 Registration Form		🟢 Elakkiya M	● New	elakkiya-hexa-assessment	

User stories under User Authentication:

	ID	Title		Assigned To	State	Area Path
✔	96	📘 Session Management	···	EM Elakkiya M	● New	elakkiya-hexa-assessment
	95	📘 User Login		EM Elakkiya M	● New	elakkiya-hexa-assessment

User stories under Password Reset:

	ID	Title		Assigned To	State	Area Path
✔	98	📘 Security Questions	···	EM Elakkiya M	● New	elakkiya-hexa-assessment
	97	📘 Password Reset via Email		EM Elakkiya M	● New	elakkiya-hexa-assessment

User stories under Account Creation:

	ID	Title		Assigned To	State	Area Path
✔	100	📘 Current Account Creation	···	EM Elakkiya M	● New	elakkiya-hexa-assessment
	99	📘 Savings Account Creation		EM Elakkiya M	● New	elakkiya-hexa-assessment

User stories under View Account Balance:

	ID	Title		Assigned To	State	Area Path
✔	102	📘 Mini Statement	···	EM Elakkiya M	● New	elakkiya-hexa-assessment
	101	📘 Balance Inquiry		EM Elakkiya M	● New	elakkiya-hexa-assessment

User stories under Within Bank Transfer, Other Bank Transfer, Scheduled Transfers:

	ID	Title		Assigned To	State	Area Path
✔	106	📘 External Fund Transfer	···	EM Elakkiya M	● New	elakkiya-hexa-assessment
	105	📘 Auto Transfer Setup		EM Elakkiya M	● New	elakkiya-hexa-assessment
	103	📘 Internal Fund Transfer		EM Elakkiya M	● New	elakkiya-hexa-assessment

User stories under View Transaction History, Export/Download Statement:

ID	Title	Assigned To	State	Area Path
108	📘 Statement Download	EM Elakkiya M	● New	elakkiya-hexa-assessment
107	📘 Recent Transactions	EM Elakkiya M	● New	elakkiya-hexa-assessment

User stories under Search & Filter Transactions:

	ID	Title		Assigned To	State	Area Path
✅	111	📊 Filter by Type	...	EM Elakkiya M	● New	elakkiya-hexa-assessment
	110	📊 Filter by Amount		EM Elakkiya M	● New	elakkiya-hexa-assessment
	109	📊 Filter by Date		EM Elakkiya M	● New	elakkiya-hexa-assessment

User stories under Data Encryption, Audit Logging:

Recently created ∨ | + New Work Item ∨ | → Open in Queries | 🖊 Column Options | ⬆ Import Work Items | 🗑 Recycle Bin

≡ Filter by keyword   Types ∨   Assigned to ∨   States ∨   A

	ID	Title	Assigned To	State	Area Path
	113	📊 Activity Logs	EM Elakkiya M	● New	elakkiya-hexa-assessment
	112	📊 Secure Data Storage	EM Elakkiya M	● New	elakkiya-hexa-assessment

User stories under Multi-Factor Authentication:

Recently created ∨ | + New Work Item ∨ | → Open in Queries | 🖊 Column Options | ⬆ Import Work Items | 🗑 Recycle Bin

≡ Filter by keyword   Types ∨   Assigned to ∨   States ∨   Ar

	ID	Title		Assigned To	State	Area Path
✅	115	📊 Email/SMS Verification	...	EM Elakkiya M	● New	elakkiya-hexa-assessment
	114	📊 OTP Login		EM Elakkiya M	● New	elakkiya-hexa-assessment

4. Break User Stories into Tasks

Tasks under the User Story – Registration Form:

Recently created ∨ | + New Work Item ∨ | → Open in Queries | 🖊 Column Options | ⬆ Import Work Items | 🗑 Recycle Bin

≡ Filter by keyword   Types ∨   Assigned to ∨   States ∨   A

	ID	Title		Assigned To	State	Area Path
✅	119	📋 Input Validation	...	EM Elakkiya M	● New	elakkiya-hexa-assessment
	118	📋 DB Insert		EM Elakkiya M	● New	elakkiya-hexa-assessment
	117	📋 API Development		EM Elakkiya M	● New	elakkiya-hexa-assessment
	116	📋 UI Design		EM Elakkiya M	● New	elakkiya-hexa-assessment

Tasks under the User Story – Admin Approval

≡ Filter by keyword   Types ∨   Assigned to ∨   States ∨   A

	ID	Title		Assigned To	State	Area Path
✅	122	DB Update	⋯	EM Elakkiya M	● New	elakkiya-hexa-assessment
	121	Workflow Logic		EM Elakkiya M	● New	elakkiya-hexa-assessment
	120	Approval Page		EM Elakkiya M	● New	elakkiya-hexa-assessment

Tasks under the User Story – User Login

≡ Filter by keyword   Types ∨   Assigned to ∨   States ∨

	ID	Title		Assigned To	State	Area Path
✅	126	Login Status	⋯	EM Elakkiya M	● New	elakkiya-hexa-assessment
	125	Credential Validation		EM Elakkiya M	● New	elakkiya-hexa-assessment
	124	Login API		EM Elakkiya M	● New	elakkiya-hexa-assessment
	123	Login Form		EM Elakkiya M	● New	elakkiya-hexa-assessment

Tasks under the User Story – Session Management

≡ Filter by keyword   Types ∨   Assigned to ∨   States ∨   A

	ID	Title		Assigned To	State	Area Path
✅	129	Session Validation	⋯	EM Elakkiya M	● New	elakkiya-hexa-assessment
	128	Session Expiry		EM Elakkiya M	● New	elakkiya-hexa-assessment
	127	Session Token		EM Elakkiya M	● New	elakkiya-hexa-assessment

Tasks under the User Story – Password Reset via Email

≡ Filter by keyword   Types ∨   Assigned to ∨   States ∨   Are

	ID	Title		Assigned To	State	Area Path
✅	132	Password Update	⋯	EM Elakkiya M	● New	elakkiya-hexa-assessment
	131	Email Link		EM Elakkiya M	● New	elakkiya-hexa-assessment
	130	Request Form		EM Elakkiya M	● New	elakkiya-hexa-assessment

Tasks under the User Story – Security Questions

≡ Filter by keyword   Types ∨   Assigned to ∨   States ∨

	ID	Title		Assigned To	State	Area Path
✅	134	Question Validation	⋯	EM Elakkiya M	● New	elakkiya-hexa-assessment
	133	Question Setup		EM Elakkiya M	● New	elakkiya-hexa-assessment

Tasks under the User Story – Savings Account Creation

	ID	Title		Assigned To	State	Area Path
✓	137	DB Storage	...	Elakkiya M	New	elakkiya-hexa-assessment
	136	API Development		Elakkiya M	New	elakkiya-hexa-assessment
	135	Form Design		Elakkiya M	New	elakkiya-hexa-assessment

Tasks under the User Story – Current Account Creation

Recently created ∨   + New Work Item ∨   ↗ Open in Queries   ✎ Column Options   ↑ Import Work Items   🗑 Recycle Bin

	ID	Title		Assigned To	State	Area Path
✓	140	DB Storage	...	Elakkiya M	New	elakkiya-hexa-assessment
	139	API Development		Elakkiya M	New	elakkiya-hexa-assessment
	138	Form Design		Elakkiya M	New	elakkiya-hexa-assessment

Tasks under the User Story – Balance Inquiry

Recently created ∨   + New Work Item ∨   ↗ Open in Queries   ✎ Column Options   ↑ Import Work Items   🗑 Recycle Bin

	ID	Title		Assigned To	State	Area Path
✓	143	UI Display	...	Elakkiya M	New	elakkiya-hexa-assessment
	142	DB Fetch		Elakkiya M	New	elakkiya-hexa-assessment
	141	Balance API		Elakkiya M	New	elakkiya-hexa-assessment

Tasks under the User Story – Mini Statement

Recently created ∨   + New Work Item ∨   ↗ Open in Queries   ✎ Column Options   ↑ Import Work Items   🗑 Recycle Bin

	ID	Title		Assigned To	State	Area Path
✓	146	UI Display	...	Elakkiya M	New	elakkiya-hexa-assessment
	145	DB Fetch		Elakkiya M	New	elakkiya-hexa-assessment
	144	Statement API		Elakkiya M	New	elakkiya-hexa-assessment

Tasks under the User Story – Internal Fund Transfer

	ID	Title		Assigned To	State	Area Path
✓	150	Confirmation UI	...	Elakkiya M	New	elakkiya-hexa-assessment
	149	DB Update		Elakkiya M	New	elakkiya-hexa-assessment
	148	Transfer API		Elakkiya M	New	elakkiya-hexa-assessment
	147	Transfer Form		Elakkiya M	New	elakkiya-hexa-assessment

Tasks under the User Story – External Fund Transfer

	ID	Title		Assigned To	State	Area Path
✅	154	📋 Status Display	⋯	🟢 Elakkiya M	⚪ New	elakkiya-hexa-assessment
	153	📋 Amount Deduction		🟢 Elakkiya M	⚪ New	elakkiya-hexa-assessment
	152	📋 Account Validation		🟢 Elakkiya M	⚪ New	elakkiya-hexa-assessment
	151	📋 External API Integration		🟢 Elakkiya M	⚪ New	elakkiya-hexa-assessment

Tasks under the User Story – Auto Transfer Setup

	ID	Title		Assigned To	State	Area Path
✅	157	📋 Notification	⋯	🟢 Elakkiya M	⚪ New	elakkiya-hexa-assessment
	156	📋 Scheduler Logic		🟢 Elakkiya M	⚪ New	elakkiya-hexa-assessment
	155	📋 Schedule Form		🟢 Elakkiya M	⚪ New	elakkiya-hexa-assessment

Tasks under the User Story – Recent Transactions

Work items

	ID	Title		Assigned To	State	Area Path
✅	160	📋 UI Display	⋯	🟢 Elakkiya M	⚪ New	elakkiya-hexa-assessment
	159	📋 DB Fetch		🟢 Elakkiya M	⚪ New	elakkiya-hexa-assessment
	158	📋 History API		🟢 Elakkiya M	⚪ New	elakkiya-hexa-assessment

Tasks under the User Story – Statement Download

	ID	Title		Assigned To	State	Area Path
✅	162	📋 Download Option	⋯	🟢 Elakkiya M	⚪ New	elakkiya-hexa-assessment
	161	📋 Report Generation		🟢 Elakkiya M	⚪ New	elakkiya-hexa-assessment

Tasks under the User Story – Filter by Date, Amount, Type

	ID	Title		Assigned To	State	Area Path
Filter by keyword				Types ∨	Assigned to ∨	States ∨
✓	165	📋 Type Filter	⋯	🟢 Elakkiya M	● New	elakkiya-hexa-assessment
	164	📋 Amount Filter		🟢 Elakkiya M	● New	elakkiya-hexa-assessment
	163	📋 Date Filter Implementation		🟢 Elakkiya M	● New	elakkiya-hexa-assessment

Tasks under the User Story – Secure Data Storage

Recently created ∨ ＋ New Work Item ∨ ↷ Open in Queries 🖊 Column Options ↑ Import Work Items 🗑 Recycle Bin

	ID	Title		Assigned To	State	Area Path
Filter by keyword				Types ∨	Assigned to ∨	States ∨
✓	167	📋 Field Encryption	⋯	🟢 Elakkiya M	● New	elakkiya-hexa-assessment
	166	📋 Password Hashing		🟢 Elakkiya M	● New	elakkiya-hexa-assessment

Tasks under the User Story – Activity Logs

Work items

Recently created ∨ ＋ New Work Item ∨ ↷ Open in Queries 🖊 Column Options ↑ Import Work Items 🗑 Recycle Bin

	ID	Title		Assigned To	State	Area Path
Filter by keyword				Types ∨	Assigned to ∨	States ∨
✓	170	📋 Log Reporting	⋯	🟢 Elakkiya M	● New	elakkiya-hexa-assessment
	169	📋 Log Storage		🟢 Elakkiya M	● New	elakkiya-hexa-assessment
	168	📋 Log Implementation		🟢 Elakkiya M	● New	elakkiya-hexa-assessment

Tasks under the User Story – OTP Login

Work items

Recently created ∨ ＋ New Work Item ∨ ↷ Open in Queries 🖊 Column Options ↑ Import Work Items 🗑 Recycle Bin

	ID	Title		Assigned To	State	Area Path
Filter by keyword				Types ∨	Assigned to ∨	States ∨
✓	172	📋 OTP Validation	⋯	🟢 Elakkiya M	● New	elakkiya-hexa-assessment
	171	📋 OTP Generation		🟢 Elakkiya M	● New	elakkiya-hexa-assessment

Tasks under the User Story – Email/SMS Verification

Recently created ∨ ＋ New Work Item ∨ ↷ Open in Queries 🖊 Column Options ↑ Import Work Items 🗑 Recycle Bin

	ID	Title		Assigned To	State	Area Path
Filter by keyword				Types ∨	Assigned to ∨	States ∨
✓	174	📋 SMS Verification	⋯	🟢 Elakkiya M	● New	elakkiya-hexa-assessment
	173	📋 Email Verification		🟢 Elakkiya M	● New	elakkiya-hexa-assessment

The final sample structure:

Epic 1: User Management

- Feature: User Registration
  - User Story: Registration Form
    - Task: UI Design
    - Task: API Development
    - Task: DB Insert
    - Task: Input Validation
  - User Story: Admin Approval
    - Task: Approval Page
    - Task: Workflow Logic
    - Task: DB Update
- Feature: User Authentication (Login)
  - User Story: User Login
    - Task: Login Form
    - Task: Login API
    - Task: Credential Validation
    - Task: Login Status
  - User Story: Session Management
    - Task: Session Token
    - Task: Session Expiry
    - Task: Session Validation
- Feature: Password Reset
  - User Story: Password Reset via Email
    - Task: Request Form
    - Task: Email Link
    - Task: Password Update
  - User Story: Security Questions
    - Task: Question Setup
    - Task: Question Validation

Epic 2: Account Services

- Feature: Account Creation
  - o User Story: Savings Account Creation
    - Task: Form Design
    - Task: API Development
    - Task: DB Storage
  - o User Story: Current Account Creation
    - Task: Form Design
    - Task: API Development
    - Task: DB Storage
- Feature: View Account Balance
  - o User Story: Balance Inquiry
    - Task: Balance API
    - Task: DB Fetch
    - Task: UI Display
  - o User Story: Mini Statement
    - Task: Statement API
    - Task: DB Fetch
    - Task: UI Display

Epic 3: Fund Transfer

- Feature: Within Bank Transfer
  - o User Story: Internal Fund Transfer
    - Task: Transfer Form
    - Task: Transfer API
    - Task: DB Update
    - Task: Confirmation UI
- Feature: Other Bank Transfer
  - o User Story: External Fund Transfer
    - Task: External API Integration
    - Task: Account Validation
    - Task: Amount Deduction

- ▪ Task: Status Display
- Feature: Scheduled Transfers
  - o User Story: Auto Transfer Setup
    - ▪ Task: Schedule Form
    - ▪ Task: Scheduler Logic
    - ▪ Task: Notification

Epic 4: Transaction History

- Feature: View Transaction History
  - o User Story: Recent Transactions
    - ▪ Task: History API
    - ▪ Task: DB Fetch
    - ▪ Task: UI Display
- Feature: Export/Download Statement
  - o User Story: Statement Download
    - ▪ Task: Report Generation
    - ▪ Task: Download Option
- Feature: Search & Filter Transactions
  - o User Story: Filter by Date
    - ▪ Task: Date Filter Implementation
  - o User Story: Filter by Amount
    - ▪ Task: Amount Filter
  - o User Story: Filter by Type
    - ▪ Task: Type Filter

Epic 5: Security and Compliance

- Feature: Data Encryption
  - o User Story: Secure Data Storage
    - ▪ Task: Password Hashing
    - ▪ Task: Field Encryption
- Feature: Audit Logging
  - o User Story: Activity Logs
    - ▪ Task: Log Implementation

- Task: Log Storage
- Task: Log Reporting
- Feature: Multi-Factor Authentication
  - User Story: OTP Login
    - Task: OTP Generation
    - Task: OTP Validation
  - User Story: Email/SMS Verification
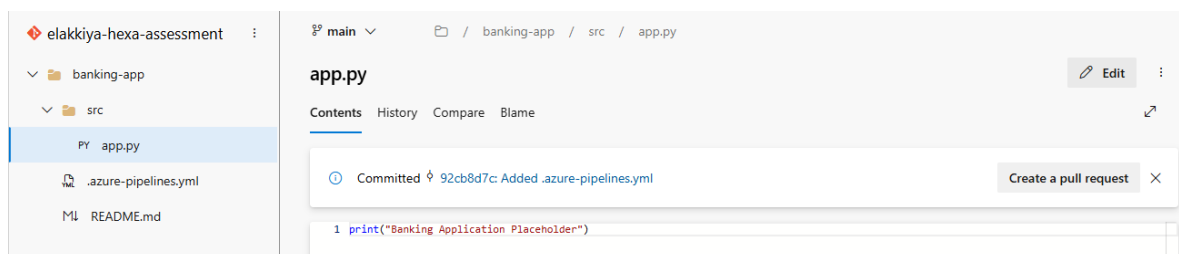   - Task: Email Verification
    - Task: SMS Verification

PART 2 - Azure DevOps Git Setup

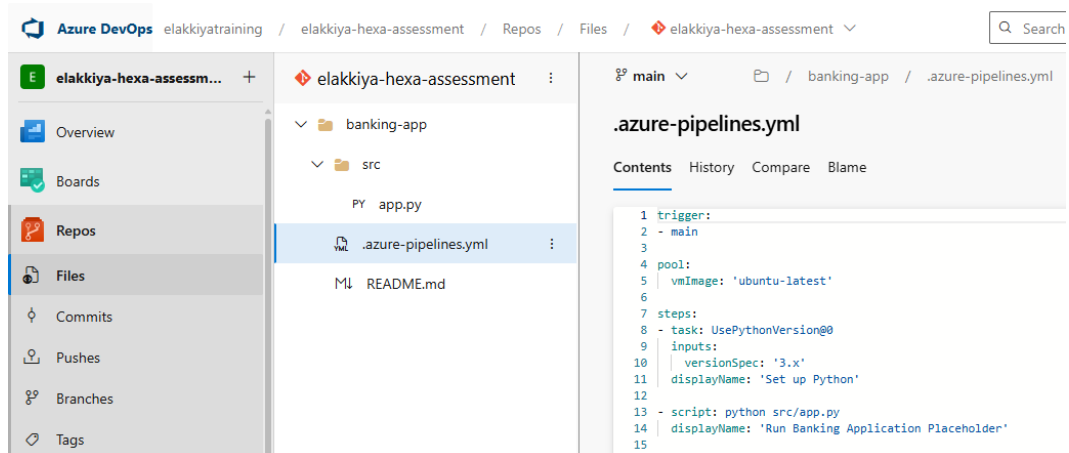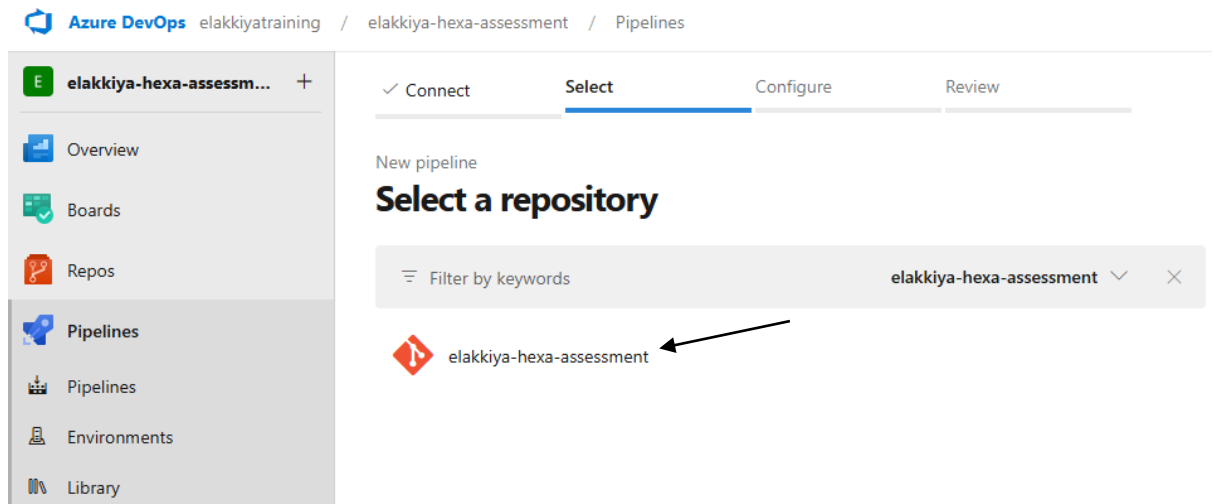## 1. Create a Git Repo
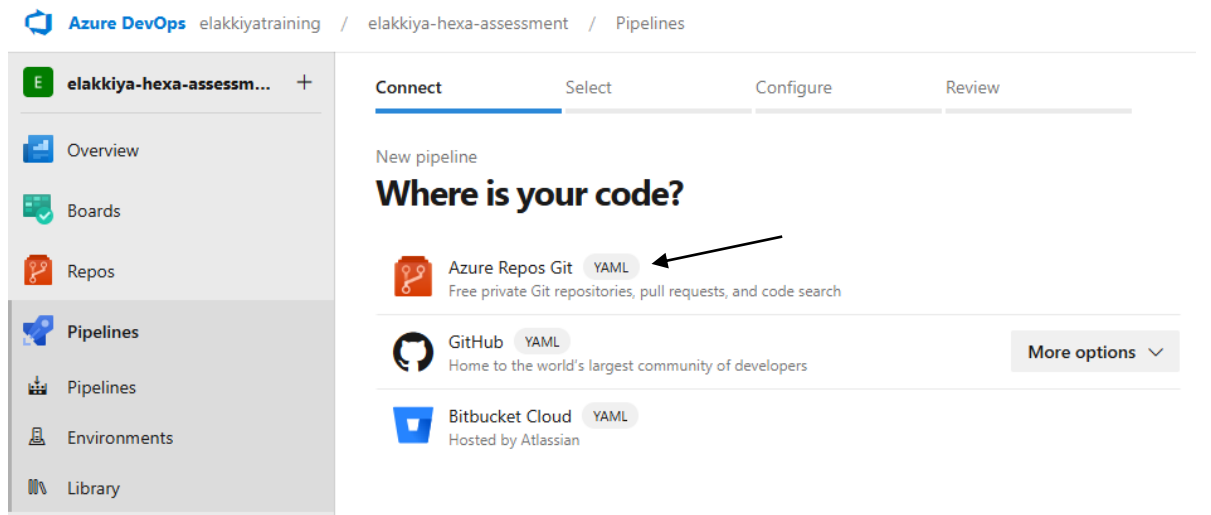
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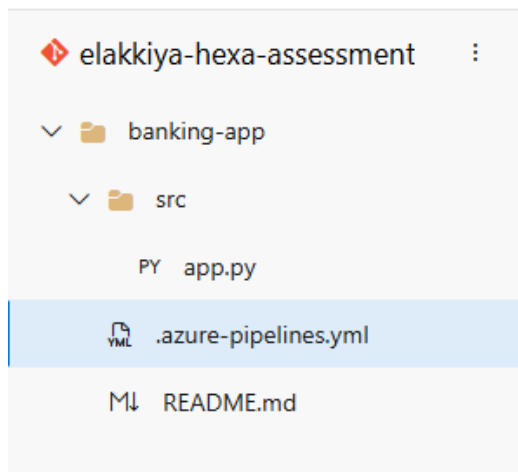
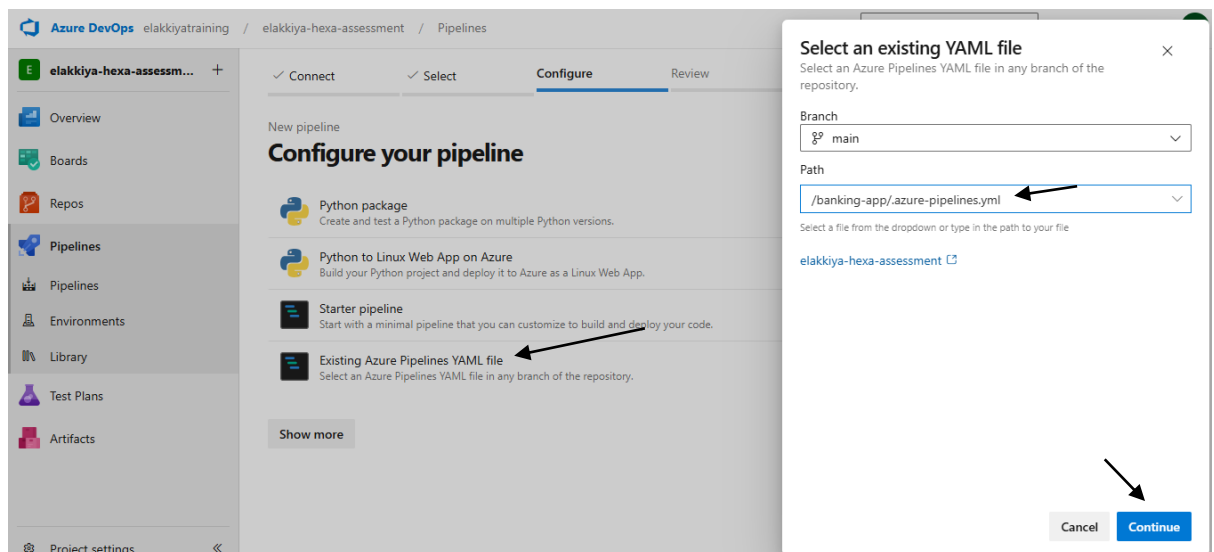app.py

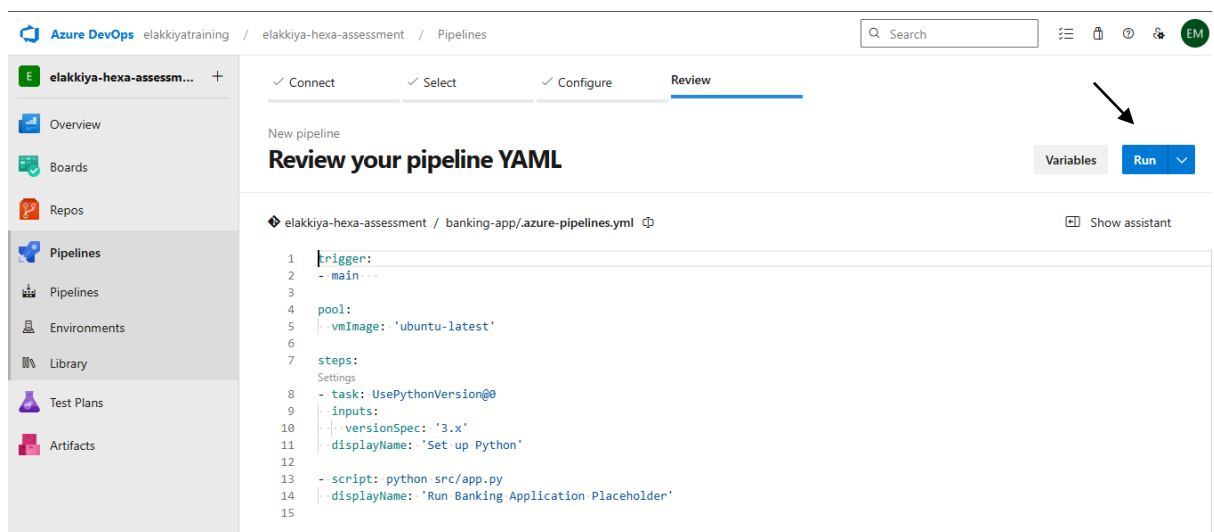**PART 3 - Configure CI/CD Pipeline**

Create Simple Pipeline

1. Go to Azure DevOps Portal → Pipelines→ New Pipeline → Connect your repo → Select YAML.

2. I have the yaml file in repo so I am selecting the existing then select the path and click continue:

3. Save & Run.

This is how we create the pipeline in azure DevOps but we need subscription to run the job succesfully