I need to add AI capabilities to my React and .NET API project for running analysis across uploaded documents and source code. The application is used for assessing line of business applications within an enterprise organization to understand where the app fits in the 6R's of application migration/modernization. The following are descriptions of the component modules that will need AI Analysis capability:

1. Business Context Analysis: AI will use gathered data workshop data to analyze upfront info such as business drivers, stakeholders, budgets, timelines, and risks.

2. Architecture and Code Review and Analysis: AI will analyze source code for all of the typical items such as lines of code, frameworks, Languages, code smells, Issues, bugs, maintainability, coupling, tests, tech debt, patterns, etc... Source code will be located in either GitHub, Azure DevOps, or raw files.

3. Infrastructure and Compute Assessment: AI will use data from Azure Migrate, Log Files, in-house documentation, etc... to analyze and return summarization, costs, security, modernization, networking, VM, utilization, performance, migration readiness, cloud readiness, number of servers and types, ROI if moving from on premises, effort estimations, etc...

4. Data Architecture Assessment: AI will use data from Microsoft's DMA export, SQL Logs, ERD's, Data Models, and in-house documents to assess the data estate. Items such as Migration, performance, modernizations, compliance, classification, Lineage, total size, Number of databases, Azure Ready, etc...

5. DevOps and Development Assessment: AI will use file exports from GitHub (or APIs), Azure DevOps, and log files to assess the state of the customer's DevOps. Practices. Return values will include CI/CD pipelines, Automation, testing, Infrastructure as code, monitoring and alerts, security, MTTR, Lead times, deploy and build frequencies, build times, success rate, etc...

6. Application Security Assessment: AI will use files from vulnerability scans, SIEM exports, logs from Firewalls, VPN, IDS/IPS, EDR, AV, System app, patch, backup, compliance reports, etc... to assess the state of the app security. Return values should include security posture, threat analysis, compliance, security recommendations, vulnerability distro, cross-domain security, risks, logs summary list, etc...

Cloud Readiness: After the 6 assessments are complete AI will use that returned data to analyze and score the application for Cloud Readiness. It will also need to formulate a action plan for modernizing and/or migrating the app. AI return values should include migration approach (6R's), time estimate, remediations, risks, cost savings, prerequisites, phase approach, breakdown of readiness by assessment (each of the 6), strategy, technical analysis, etc...

Recommendations: And finally the AI will need to gather all assessment information (assessments can have multiple applications, databases, etc...), summarize and formulate recommendations for moving, modernizing, replacing, refactoring, retiring, etc... the application(s. Output should also include ROI, Issues, Time to Value, quick wins, business case, strategies, risks, opportunities, cost benefits, NPV, Future state, priorities, etc... and also include a detailed recommendation section for each assessment type and it's app.

Where ever there is a runAnalysis button it's going to use AI to perform that analysis and return the response All via the API. My guess is Semantic Kernal would be the best technology since we are using Azure for hosting resources.