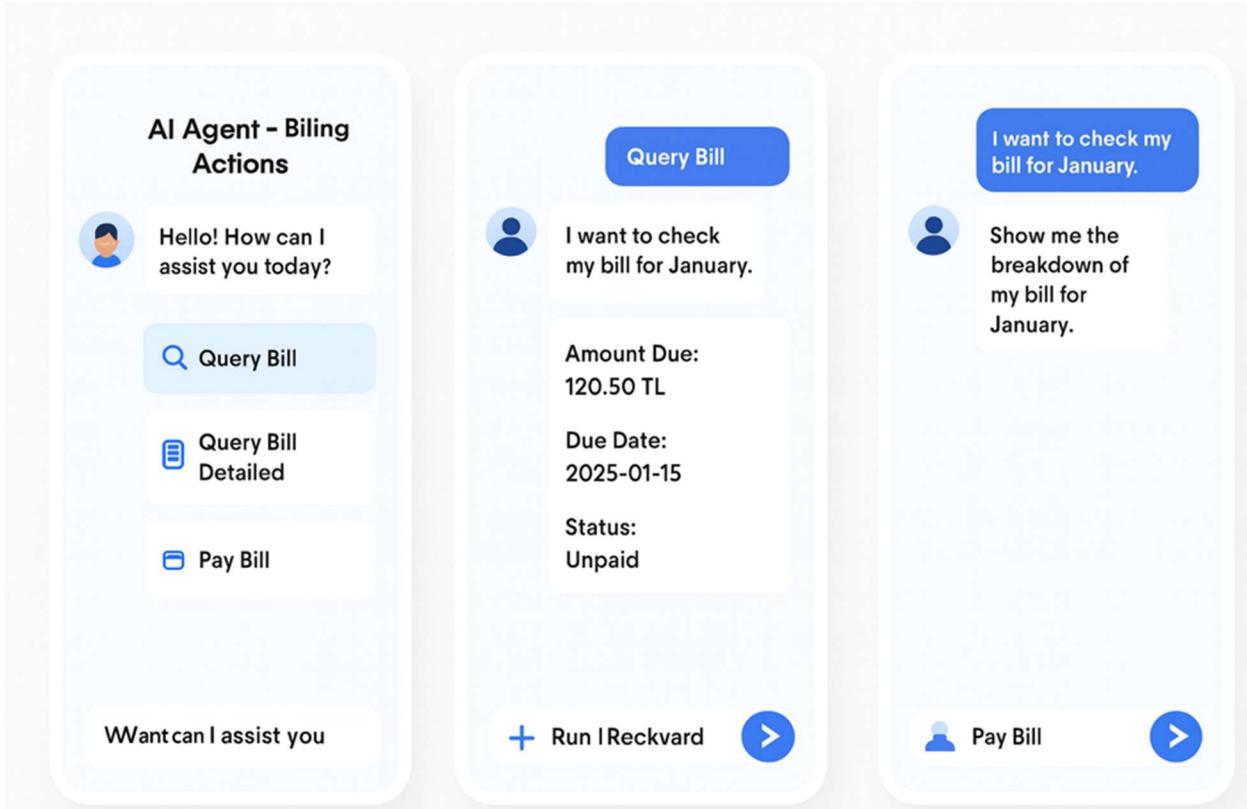


SE 4458 – ASSIGNMENT 2

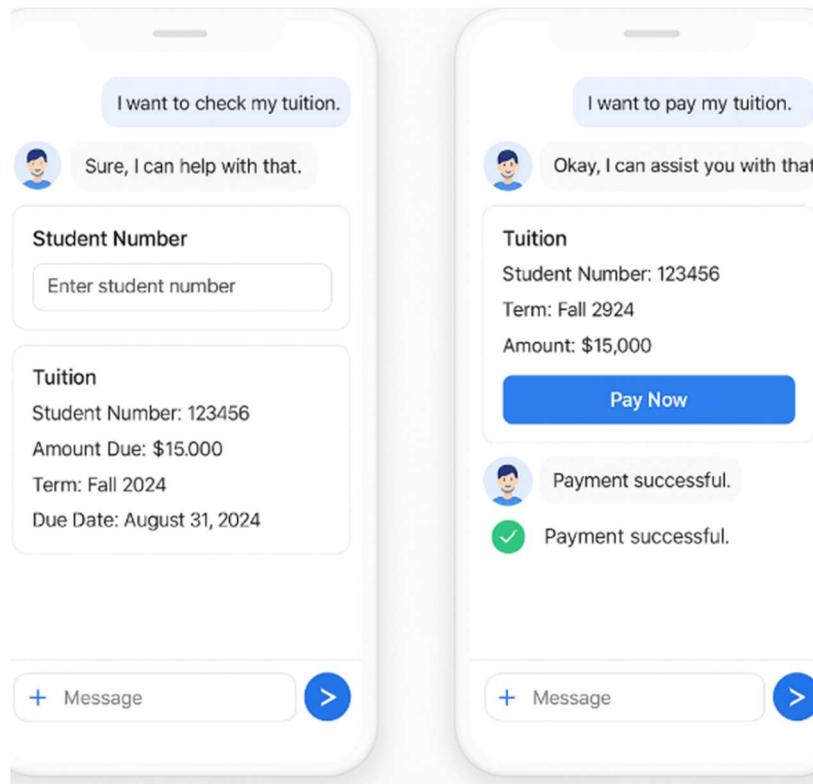
1. Create an AI Agent chat application for the Query Bill, Pay Bill and Query Bill Detailed APIs you created in Midterm



Students

ÜLKÜ BARTU SERBEST AYŞİMA ADATEPE ELİF EMİNE GÜNAL IRMAK ARABACI DİLARA ACAR AHMET KEMAL BİLİCİLER YAĞMUR SABIRLI OZAN BÖCE	MURAT HABİP OKAN MELİKE AYTAÇ MELİSA DEMİRBAŞ PELİN DUMAN SELÇUK SUAT SAYIN DEFNE TEKYİĞİT LARA ÖZDUMAN DURU GENCAY	
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2. Create an AI Agent chat application for the Query Tution, Unpaid Tution and Pay Tution APIs you created in Midterm



Students

SUDE KARAKAYA DOĞUKAN YEŞİLKAYA BAŞAR ÖZKAŞLI TEVFİK EFE AYDIN KAAN YILMAZ HÜSEYİN BALCI MELİSA ŞENER KEREM KOYUNCU NURETTİN DEMIREL	BERKAY HEREK DENİZ YALIM YILMAZ DİLA GENÇAĞA MEHMET UTKU GÜNDÖĞDU EMRE ŞENER CEMİL FAHRECİ ALİ HAKTAN SİĞİN ESRA ECE GÜNGÜ
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EXPECTED ARCHITECTURE

For chat application, use a web frontend framework like React, Flutter, Angular or a mobile frontend like React-native. Flutter.

- Create an API gateway similar to the example at <https://blog.bitsrc.io/implementing-the-api-gateway-pattern-in-node-js-2cb39d174094>. All your API calls must go through the gateway

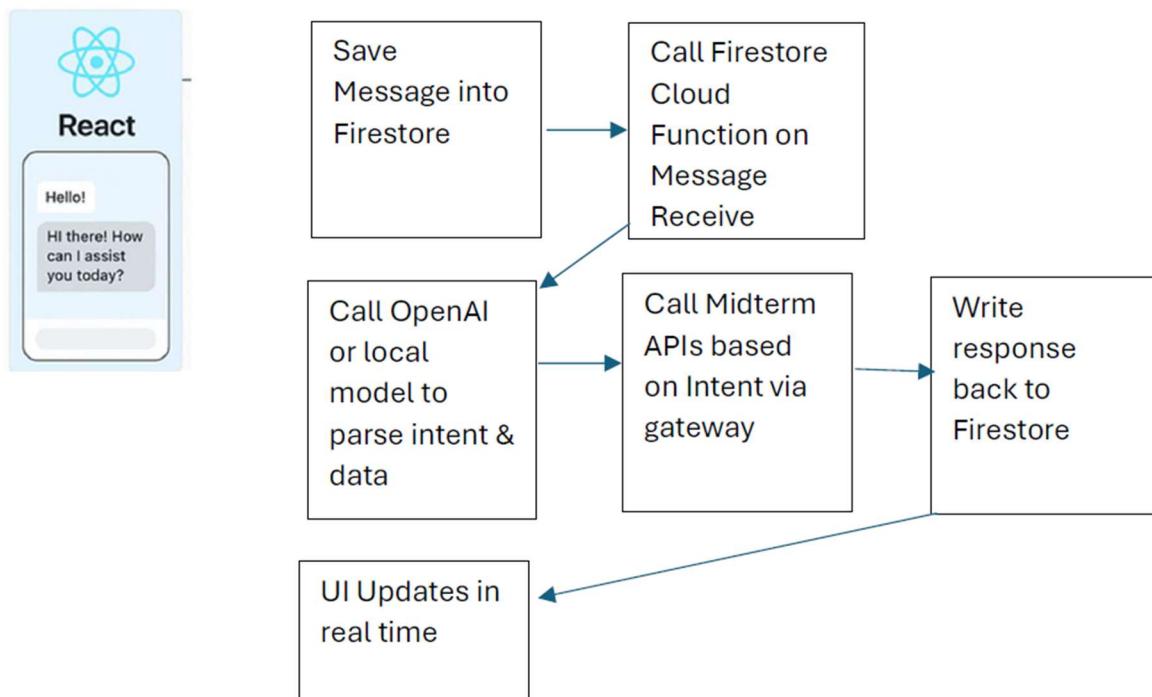
- Consider using Firestore or Realtime Database for Real Time Messaging. See below architecture recommendation

- o Call a Firestore cloud function or another API to Call LLM API (OpenAI or local model like Mistral, Ollama) to parse intent and parameters. Then call your midterm APIs with the intent.

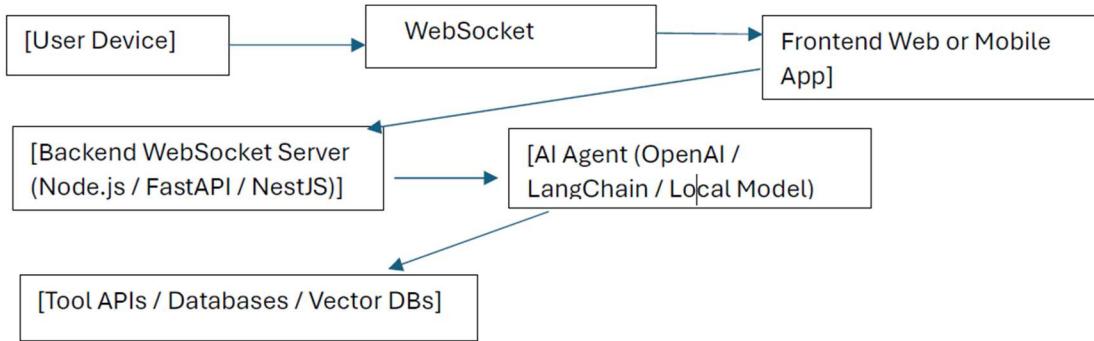
See examples at <https://github.com/southriver/SE4458-AIAgent>

- o Call Midterm APIs per message text. Assume your chat application uses constant userid/password for authentication when needed. You can add more APIs if you wish

- o Refresh chat API per API responses



You can also utilize websockets with a backend WebSocket Server or Server Send Events with required libraries



DELIVERABLES

- Project does NOT need to be deployed to a cloud app service if you are using a local LLM
- Link to your github code
 - o A readme document in your github code repo that has
 - code link to source code of the project i.e github, bitbucket
 - your design, assumptions, and issues you encountered.
 - Include a link to a short video presenting your project (hosted on google drive, youtube)

Example	
Code	https://github.com/southriver/apiNode
Deployment	https://se4458-nodejsrest-hucfdxa9dccbddcu.canadacentral-01.azurewebsites.net/api-docs/