



MINI CLINT

# Math Placement – ChatBot, Email, Phone

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## The Issue

- Too many emails and phone calls about easily accessible information at Cal Poly's Math Department.
- Takes time away from Clint's other responsibilities.

## Our Solution

- AI Chatbot that is able to access information from the Cal Poly website.
- AI also has access to student records.

DATA

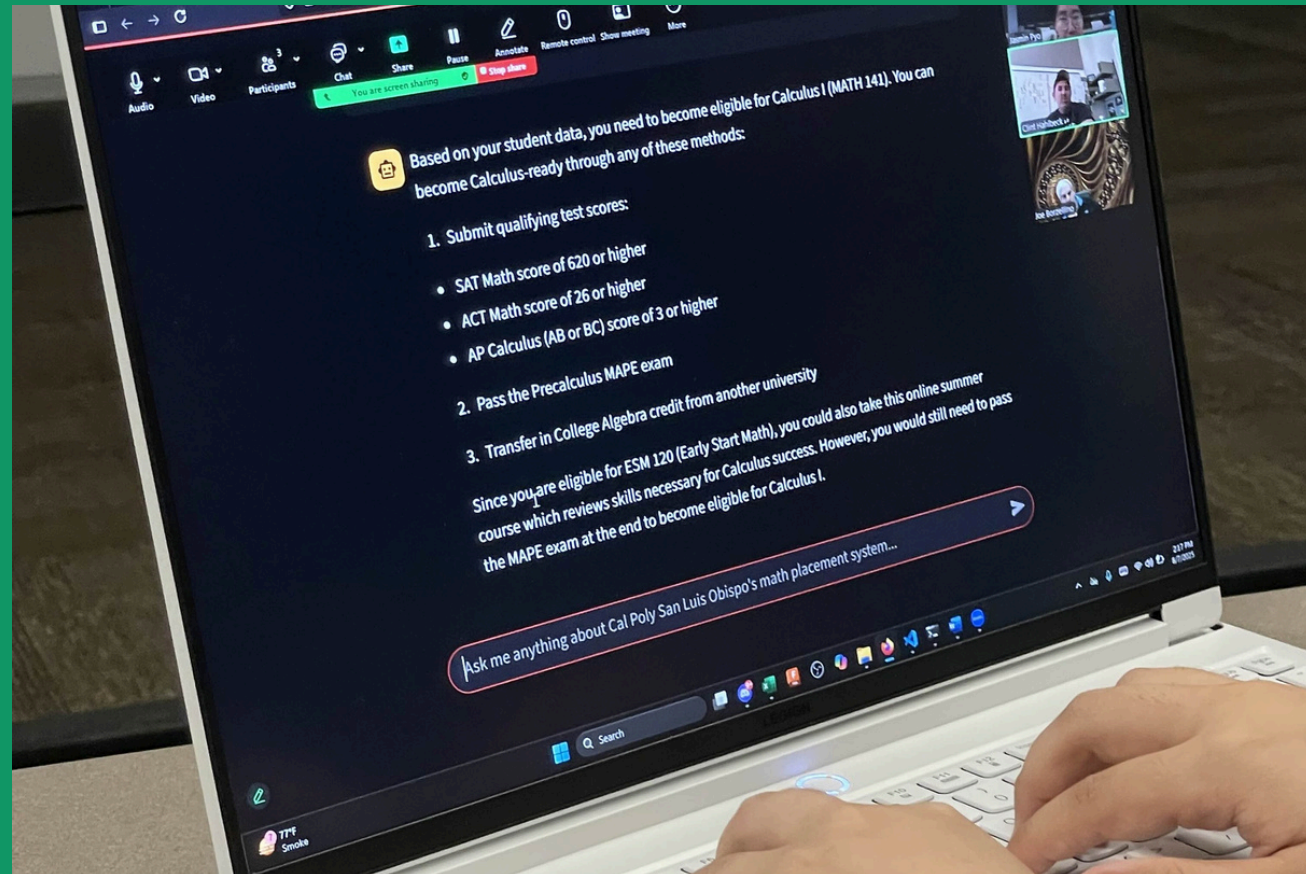
	A	B	C	D	E	F	G
1	EMPLID	Name	Term	Application Status	Major	Math - Majors 1st Math Course	Math - Majors 1st Math Code
2	0001	Blake Sm	Fall 2025	Confirmed Completed	Biological Sciences	MATH 161 - Calculus for the Life Sciences I	8 Calculus I or Equi
3	0002	Jordan Lo	Fall 2025	Confirmed Completed	BioResource and Agricultural Engineering	MATH 141 - Calculus I	8 MATH 115 - Stre
4	0003	Jamie Kin	Fall 2025	Confirmed Completed	Biological Sciences	MATH 161 - Calculus for the Life Sciences I	8 Precalculus Alg
5	0004	Alex Torre	Fall 2025	Confirmed Completed	Business Administration	MATH 221 - Calculus for Business and Economics	8 Calculus I or Equi
6	0005	Jamie Riv	Fall 2025	Confirmed Completed	Business Administration	MATH 221 - Calculus for Business and Economics	8 Calculus II
7	0006	Blake Riv	Fall 2025	Confirmed Completed	Agricultural Systems Management	MATH 119 - Precalculus Trigonometry	10 Precalculus Alg
8	0007	Blake Scc	Fall 2025	Confirmed Completed	Mathematics	MATH 141 - Calculus I	8 Calculus III
9	0008	Reese Ga	Fall 2025	Confirmed Completed	Sociology	STAT 217 - Introduction to Statistical Concepts and Methods	10 Precalculus Alg
10	0009	Alex Garc	Fall 2025	Confirmed Completed	Computer Science	MATH 141 - Calculus I	8 Calculus II
11	0010	Cameron	Fall 2025	Confirmed Completed	Computer Science	MATH 141 - Calculus I	8 Calculus II
12	0011	Skyler Wr	Fall 2025	Confirmed Completed	Forest and Fire Sciences	MATH 161 - Calculus for the Life Sciences I OR MATH 221 - Calculus for Business and Economics	8 Calculus II
13	0012	Quinn Ngj	Fall 2025	Confirmed Completed	History	a single course in GE area B4	10 Calculus II
14	0013	Casey Ga	Fall 2025	Confirmed Completed	English	a single course in GE area B4	10 Precalculus Alg
15	0014	Quinn Tor	Fall 2025	Confirmed Completed	Electrical Engineering	MATH 141 - Calculus I	8 Precalculus Alg
16	0015	Peyton Nj	Fall 2025	Confirmed	Industrial Engineering	MATH 141 - Calculus I	8 Precalculus Alg
17	0016	Jamie Hei	Fall 2025	Confirmed Completed	Physics	MATH 141 - Calculus I	8 Calculus II
18	0017	Elliot Ngu	Fall 2025	Confirmed Completed	General Engineering	MATH 141 - Calculus I	8 Calculus III
19	0018	Peyton Ki	Fall 2025	Confirmed Completed	Software Engineering	MATH 141 - Calculus I	8 Calculus II
20	0019	Logan Tor	Fall 2025	Confirmed Completed	Marine Sciences	MATH 161 - Calculus for the Life Sciences I	8 Calculus I or Equi
21	0020	Blake Cla	Fall 2025	Confirmed Completed	Business Administration	MATH 221 - Calculus for Business and Economics	8 Precalculus Alg
22	0021	Morgan M	Fall 2025	Confirmed Completed	Mechanical Engineering	MATH 141 - Calculus I	8 Calculus III
23	0022	Finley Lex	Fall 2025	Confirmed Completed	Civil Engineering	MATH 141 - Calculus I	8 Calculus II
24	0023	Alex Nguy	Fall 2025	Confirmed Completed	Wine and Viticulture	MATH 161 - Calculus for the Life Sciences I	8 Precalculus Alg
25	0024	Cameron	Fall 2025	Confirmed Completed	Computer Science	MATH 141 - Calculus I	8 Calculus I or Equi
26	0025	Riley Lee	Fall 2025	Confirmed Completed	Forest and Fire Sciences	MATH 161 - Calculus for the Life Sciences I OR MATH 221 - Calculus for Business and Economics	8 Calculus II
27	0026	Logan Bal	Fall 2025	Confirmed Completed	Environmental Management and Protection	MATH 161 - Calculus for the Life Sciences I OR MATH 221 - Calculus for Business and Economics	8 Precalculus Alg
28	0027	Jordan Jol	Fall 2025	Confirmed Completed	Business Administration	MATH 221 - Calculus for Business and Economics	8 Calculus I or Equi
29	0028	Rowan Gf	Fall 2025	Confirmed Completed	Recreation, Parks, and Tourism Administration	MATH 118 - Precalculus Algebra	10 Calculus II
30	0029	Peyton Hi	Fall 2025	Confirmed Completed	Biochemistry	MATH 141 - Calculus I	8 Calculus II
31	0030	Blake Joh	Fall 2025	Confirmed	Business Administration	MATH 221 - Calculus for Business and Economics	8 Precalculus Alg
32	0031	Reese Clf	Fall 2025	Confirmed Completed	Child Development	STAT 217 - Introduction to Statistical Concepts and Methods	10 Calculus I or Equi
33	0032	Taylor Bal	Fall 2025	Confirmed Completed	Architecture	MATH 141 - Calculus I	8 Precalculus Alg
34	0033	Alex Scot	Fall 2025	Confirmed Completed	Theatre Arts	a single course in GE area B4	10 Precalculus Alg
35	0034	Dakota G	Fall 2025	Confirmed Completed	Art and Design	a single course in GE area B4	10 Precalculus Alg
36	0035	Morgan B	Fall 2025	Confirmed Completed	Computer Science	MATH 141 - Calculus I	8 Calculus I or Equi
37	0036	Quinn Bal	Fall 2025	Confirmed Completed	Biomedical Engineering	MATH 141 - Calculus I	8 MATH 115 - Stre

EMPLID	Student ID	Variable that Determines Eligibility	Cut Scores for Placement	MAPE Code
Name	Name			1 Eligible for Math 206, 241, 244,
Term	Admit Term			2 Eligible for Math 143
Application Status	Status of Application (Admitted, Confirmed, Denied Etc)			4 Eligible for Math 142, 162, 182
Major	Students Major			6 Eligible for Math 328
Math - Majors 1st Math Course	First course required of major on Flowchart			8 Eligible for Math 141, 161 or 221
Math - Majors 1st Math Code	Math Placement Code required for student to be eligible for first course			10 Eligible for Math 118, 119
Math - Math Placement Course	What course they are eligible to take			12 Eligible for Math 117
Math - Math Placement Code	The placement code the currently have. Specifics on what the codes mean in column E			14 Eligible for Math 112, 116, 227,
Math - Math Placement Course Verified	I'm not sure			16 Eligible for Math 115
Math - Math Placement Code Verified	I'm not sure			**Students with lower MAPE codes (in value)
Math - Math Placement Met	Is the student ready for their first course, not ready, or ready once they send information			
Math - Math Placement Met Long Description	Same as above but not written as a Yes/No			ELM Statu: MAPE Code
Math - ESM 105 Eligible	Is the student eligible to enroll in an Early Start Course (ESM 105)			0 16
Math - ESM 120 Eligible	Is the student eligible to enroll in an Early Start Course (ESM 120)			4 10
College Coursework Exists	Does the student have transferwork from another College?			5 10
IMP - College Course	What level course did they take at the other college?	X	Depends on course taken and Articulation Agreements	6 10
Math Tests Concatenate	All test scores on file			7 10
Formula math_placement_2_calc_III_eligible				10 10
Formula math_placement_4_calc_II_eligible				11 10
Formula math_placement_8_calc_eligible				12 16
Formula math_placement_10_precalc_eligible				13 16
Formula math_score_exists				15 Dependent on HS Transcript
Application Math Category				17 Dependent on HS Transcript
College Math Status ERS				20 Dependent on HS Transcript
ELM Status ERS	CSU Multiple Measures Code	X	In Column F	A 10
HS Math GPA ERS	High School MATH GPA			C 10
HS Math Units ERS	# MATH units taken in HS			G 10
MAPE IA	Score on Intermediate Algebra Math Placement Exam			R 10
MAPE PC	Score on Intermediate Precalculus Math Placement Exam			S 10
EAP	Score on Early Assessment Program			T 10
ACT Math	ACT Math Score	X	23-25: MAPE Code 10, 26+: MAPE Code 8	V Dependent on HS Transcript
ACT Math SS	ACT Math Super Score			W 10

- 5517 rows, 5517 students
- Each student row has 52 columns containing various information from:
  - Test Scores
  - Transcripts
  - Initial Math Placement
  - More variables that go into math placement



# DATA



## Two Calls:

1. Clarification on student records
2. Live demo to further calibrate responses for client preferences



# MR. MINI CLINT

Welcome! Please sign in

Enter your Student ID:



LOGIN

GUEST

## UI

Understanding the landscape of user needs today

Analyzing current **market trends** reveals critical insights into **user preferences** and demands. Focusing on these trends allows us to strategically align our services with what users truly value, ensuring better performance and higher satisfaction rates.



# GUARDRAILS



How do I get better at basketball?



I apologize, but I am specifically designed to help with Cal Poly mathematics department related questions, including math placement, courses, and requirements. I cannot provide advice about basketball or other unrelated topics.

I notice you're an incoming Biological Sciences major. Would you like information about your math placement or upcoming math courses at Cal Poly? I'd be happy to discuss your pathway to MATH 161 - Calculus for the Life Sciences I or answer any questions about math requirements for your major.

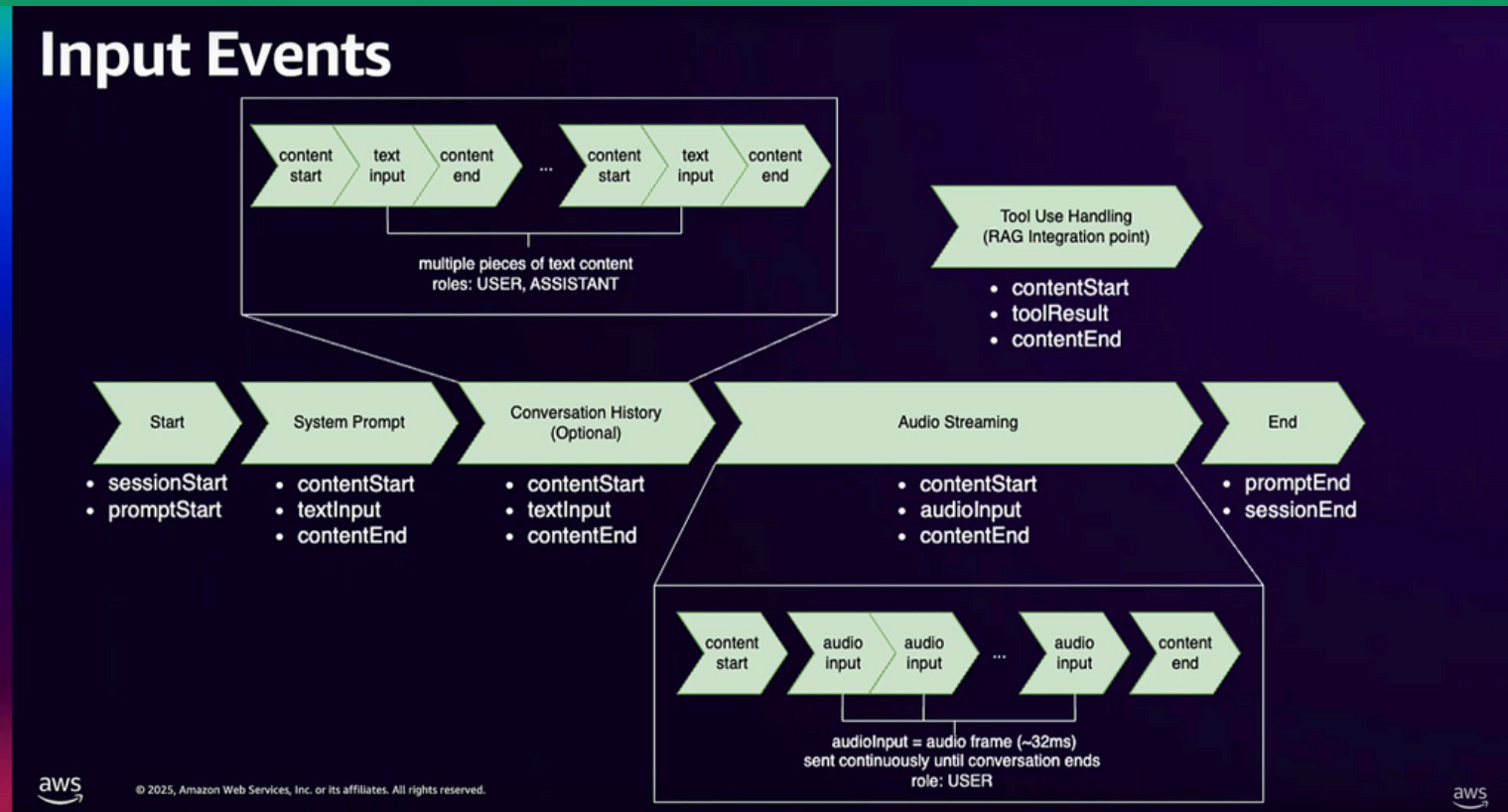
- This **live demo showcases** the user interface, illustrating how intuitive design enhances user experience and engagement.
- By integrating user feedback, we aim to create a seamless interaction that meets user needs effectively.

# EMAIL

- The Email Agent is designed to **enhance efficiency** in communication, allowing users to manage correspondence seamlessly.
- This tool is crucial for improving productivity and ensuring that important messages are never overlooked.

A screenshot of a Visual Studio Code (VS Code) terminal window. The terminal is dark-themed with light-colored text. At the top, a code editor snippet shows a Python exception handling line: `except Exception as e:`. Below this, the terminal window is active, displaying the output of a Python script. The output includes a 'SUMMARY:' section with the following details: 'Total emails processed: 4', 'Math placement emails identified: 3', and 'Responses sent: 3'. A green checkmark icon precedes the message 'Demo completed! Check outbox\_responses.json for all responses.' The terminal prompt shows the user is in a virtual environment named '.venv' and is running the command `python3 main.py`. The bottom status bar of VS Code is visible, showing 'Ln 97, Col 19', 'Spaces: 4', 'UTF-8', 'LF', 'Python', and '3.13.5 (.venv)'. The 'Go Live' button is also present on the right side of the status bar.

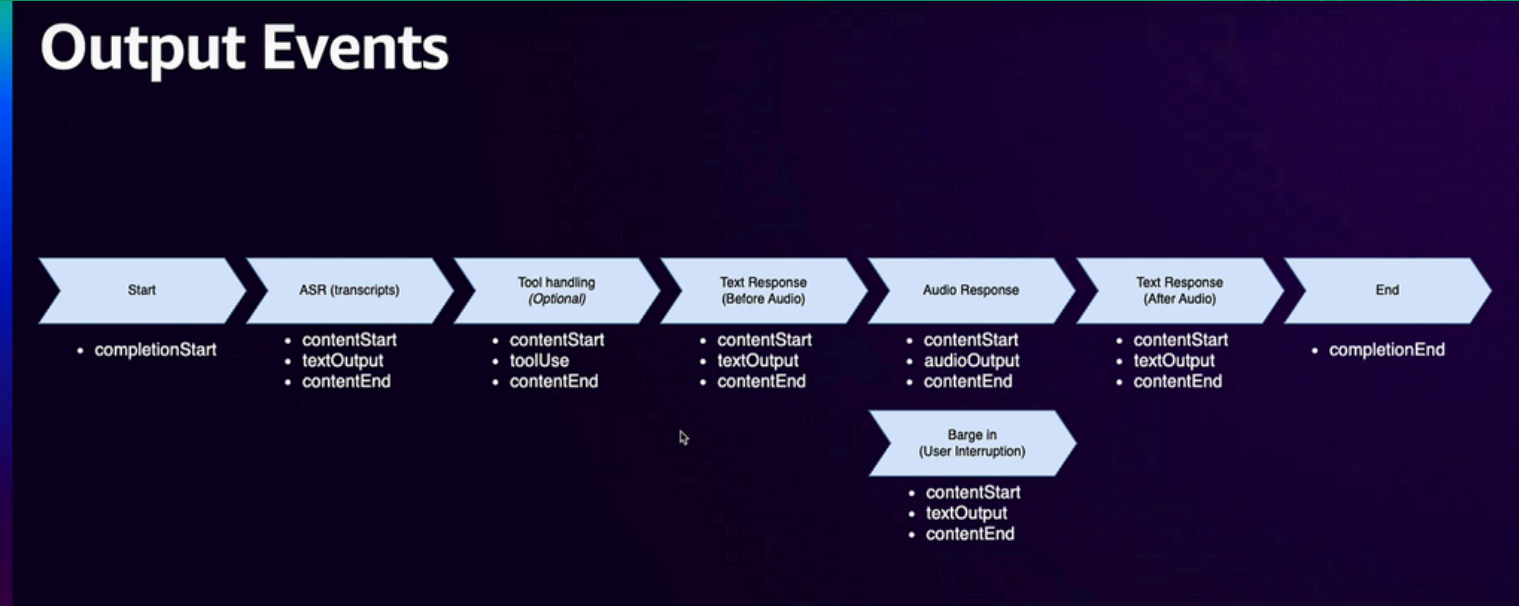
# REAL TIME CALLS WITH NOVA SONIC



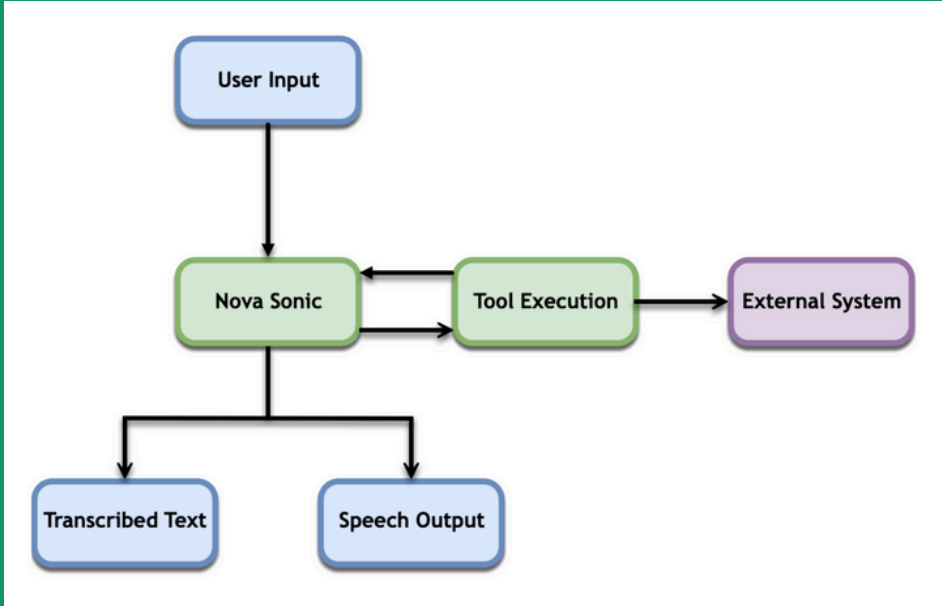
## Speech to Speech Without Sonic:

Use of FOUR models:

- Amazon Chime SDK PSTN
- Amazon Transcribe
- RAG
- Amazon Polly



## Nova Sonic: Only Sonic and RAG!





The image features a solid green background with a thin white rectangular border. In the center, there is a faint, light green wireframe globe. Overlaid on the globe is the word "Impact" in a large, bold, white sans-serif font. Several light green circles of varying sizes are scattered around the globe and the text, some partially cut off by the edges of the frame.

# Impact

Very special thank you to:



**Thank you!**  
**Any Questions?**