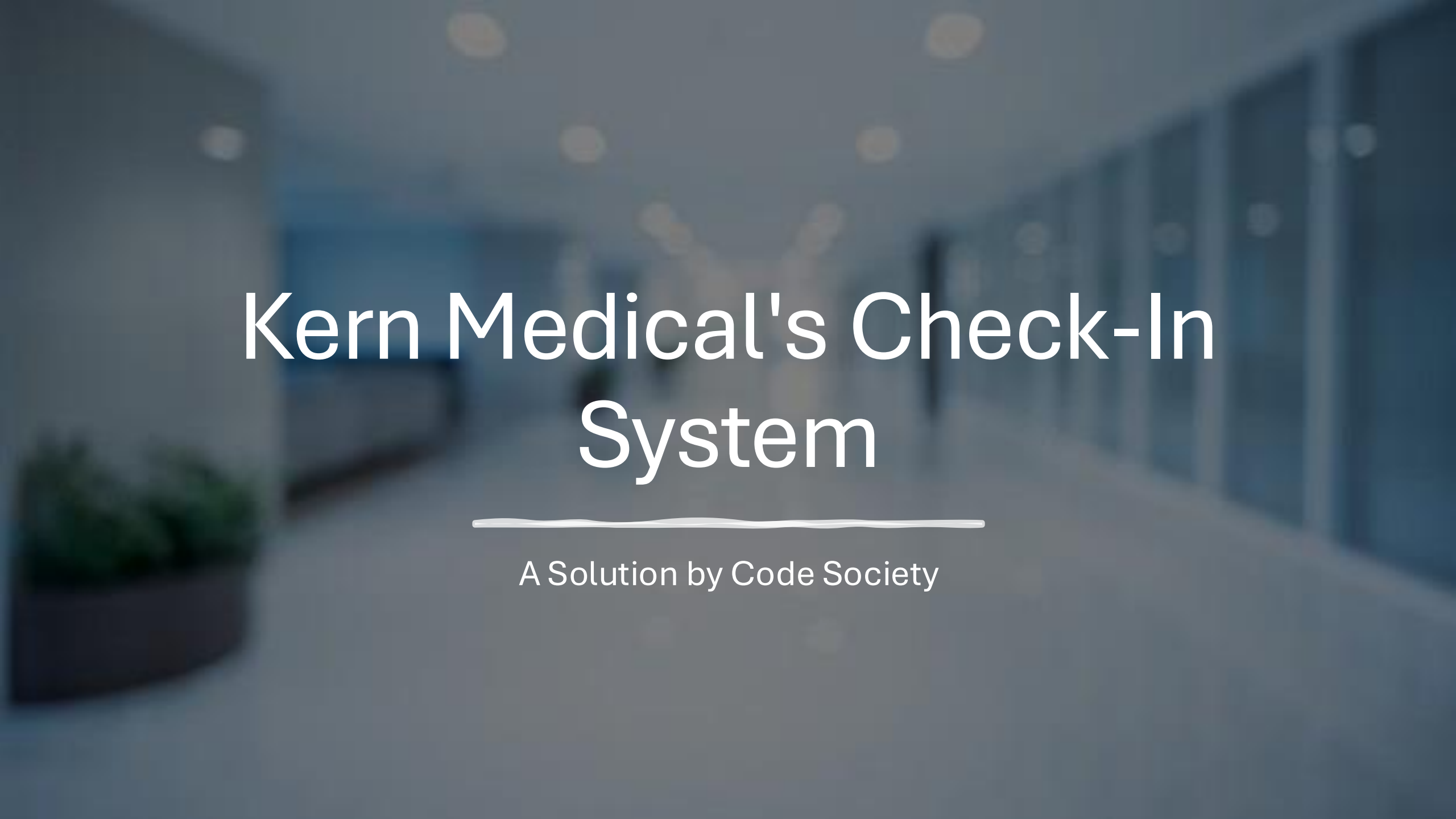
Kern Medical's Check-In System

A Solution by Code Society



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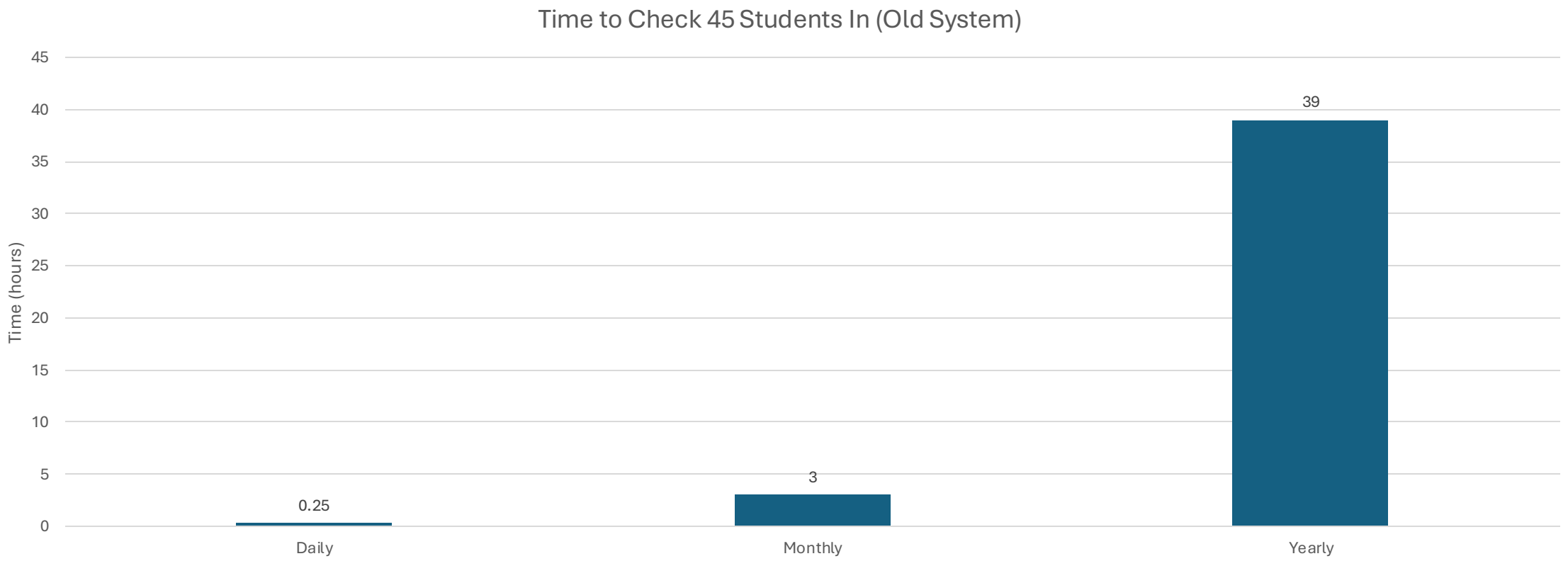
Understanding Kern Medical's Needs

- Initial Challenges:
  - Manual Processes: The existing manual check-in process is prone to errors and time-consuming, leading to delays and inaccuracies in attendance tracking.
  - Administrative Overhead: Extensive emailing burdens staff, involving correction of attendance reports, impacting operational efficiency.
  - Educational Disruption: Requires physical presence of professors for check-ins, interrupting teaching responsibilities and affecting the flow of education.

Time it Takes to Manually Scan Students In



Our Approach and Engineering Principles

- Development Strategy:
  - Agile Software Development: User-centered approach for rapid adaptation to feedback and changing needs.
  - Collaboration: Integrated expertise from Kern Medical and Code Society to enhance development.
- Engineering Principles:
  - User-Centric Design: Focus on creating an intuitive and accessible interface for all users
- Technology Stack:
  - Frontend: HTML, CSS for a user-friendly interface
  - Backend: Python and Django for a strong server-side logic and system integration

Introducing Our Solution

- System Overview:
  - The KMC Check-In System automates student attendance using QR code technology and a web-based platform, enhancing the efficiency of the check-in process
- Core Features:
  - QR Code Scanning: Quick and efficient check-ins through QR code scans from student QR codes
  - Excel Integration: Automatic update of attendance records in real-time
  - Emails and Downloads: Professors can receive attendance reports via email, which are also available for download directly from the system.

KernMedical

DataBase

View All Data | View Student Data

Create Student | Update Student | Delete Student

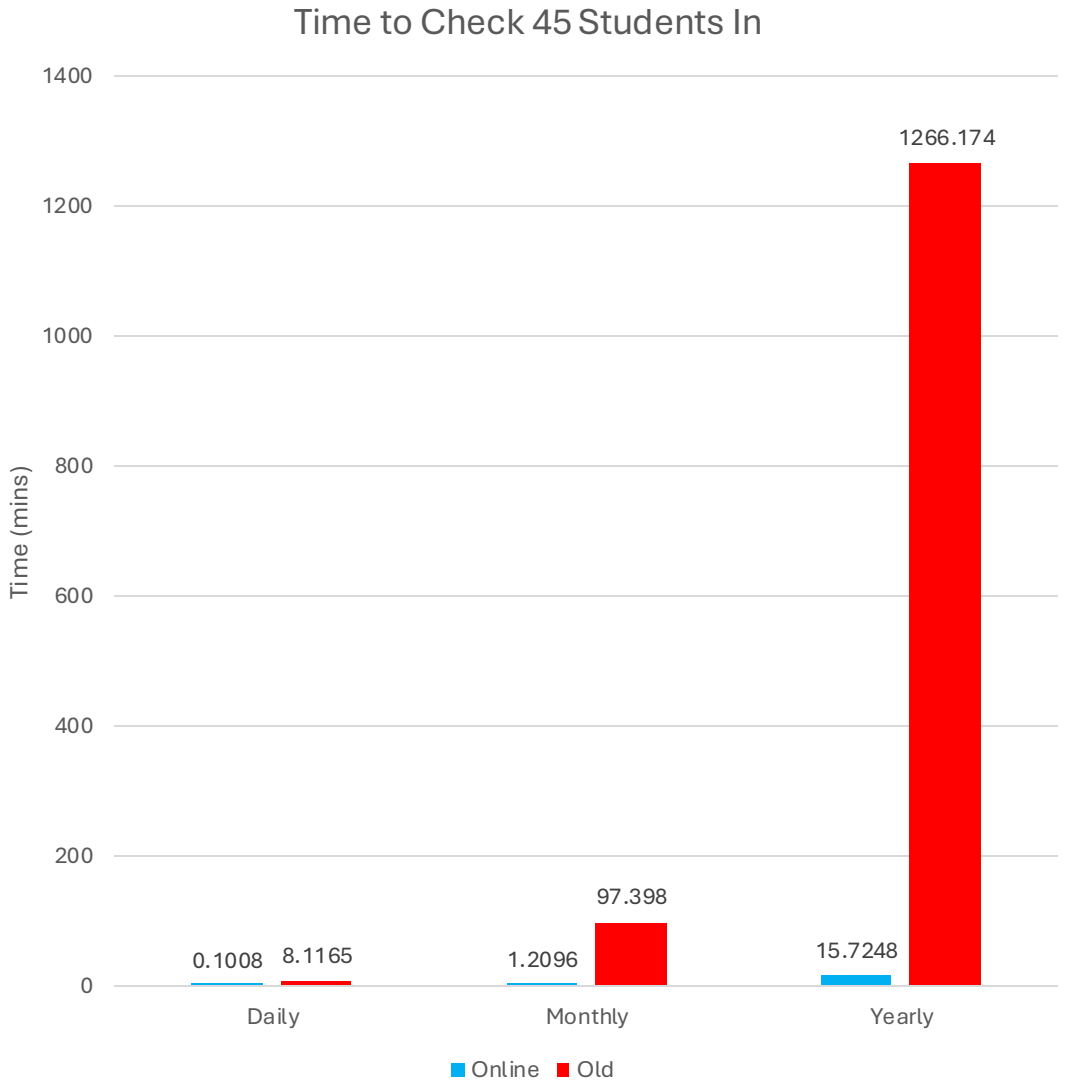
Search...

barcode	id	email	student_class	instructor	name	role	department	institution	service	caseName
423516	124152	al@gmail.com	Surgery Preparation 2B2	Dr. Phil	Dylan	Test Subject 2	Surgery	University of California, Irvine	Incision Doctor	John Doe Cancer Sore
584627	124653	jsmithe@ucla.edu	Anatomy 101	Prof. Monroe	Bailey Jones	Volunteer 1	Anatomy	University of California, LA	Cadaver Dissection	Maxillary Sinusitis
795738	125234	ltorres@ucsd.edu	Biochemistry 3A4	Dr. Kumar	Casey Taylor	Study Participant	Biochemistry	University of California, San Diego	Tissue Analysis	Chronic Lymphocytic Leukemia
936849	125815	gwashington@harvard.edu	Immunology 202	Prof. Chen	Dana Kim	Research Assistant	Immunology	Harvard University	Antibody Production	Rheumatoid Arthritis
177951	126396	rrwilliams@mit.edu	Robotics Engineering 5B	Dr. Rodriguez	Alfred Gonzalez	Project Lead	Engineering	Massachusetts Institute of Technology	Prosthetic Development	Osteoarthritis Knee
168162	126977	mmorales@stanford.edu	Cognitive Science 4D1	Prof. Li	Erin Lee	Data Analyst	Psychology	Stanford University	Behavior Study	Social Anxiety Disorder
259273	127558	nnguyen@berkeley.edu	Environmental Science 2C	Dr. Santos	Fred	Field Researcher	Environmental Studies	University of California, Berkeley	Ecosystem Assessment	Coral Bleaching
340284	128139	ojohnson@jhu.edu	Public Health 320	Prof. Edwards	George Smith	Intern	Public Health	Johns Hopkins University	Health Policy Analysis	Tuberculosis
481395	128720	plopez@yale.edu	Psychology 210A	Dr. White	Hannah Martin	Peer Counselor	Mental Health	Yale University	Psychological Assessment	Major Depressive Disorder
572406	129301	qmartinez@princeton.edu	Molecular Biology 4F3	Prof. Green	Ian Douglas	Lab Technician	Biology	Princeton University	Genetic Sequencing	Hemophilia A
653517	129882	rvargas@ox.ac.uk	Literature 300	Dr. Thompson	Jack O'Neill	Teaching Assistant	English Literature	University of Oxford	Thesis Review	Victorian Era Literature
734628	130463	swilliams@cam.ac.uk	Computer Science 220	new_instructor	Kiera Patel	Software Developer	Computer Science	University of Cambridge	Algorithm Development	Artificial Intelligence Safety
825739	131044	tunderwood@uoftoronto.ca	Pharmacology 410	Dr. Martinez	Liam Wong	Clinical Trial Volunteer	Pharmacology	University of Toronto	Drug Tester	Alcoholism
886850	131625	kvazquez@columbia.edu	Neuroscience 101	Prof. Dawson	Olivia Harris	Research Participant	Neuroscience	Columbia University	Brain Imaging	Bipolar Disorder
947961	132206	emitchell@nyu.edu	Art History 204	Dr. Lee	Samuel Thompson	Research Assistant	Art History	New York University	Artwork Restoration	Renaissance Art

Old System vs New System for Processing Check Ins

Time Saved with New System:

- Daily: 8.016 minutes
- Monthly: 96.188 minutes
- Yearly: 1250.449 minutes



Conclusion and Next Steps

- The KMC Classroom Check-In System significantly enhances the efficiency and effectiveness of Kern Medical's educational programs.
- Future Plans:
  - Continuous Improvement: Plan to gather ongoing feedback for system enhancements.
  - Potential Expansion: Explore extending the system to other training programs within Kern Medical.

Website Demo

- http://127.0.0.1:8000/

Thank you!

- To our amazing developer team for taking time out of their busy schedule as students

Meet Our Frontend Development Team

Roselyn Sierra

- Education:
  - BC Computer Science Student
- Role:
  - Graphic Designer
  - Page Developer

Jacqueline Mendoza Ortiz

- Education:
  - UCSD Computer Engineering Student
- Role:
  - Layout Designer

Fenoon Alrowhani

- Education:
  - CSUB Computer Science Student
- Role:
  - User Interface Designer
  - Page Developer

Destiny Mitchell

- Education:
  - Cal Poly Pomona Electrical Engineering Student
- Role:
  - User Experience Specialist

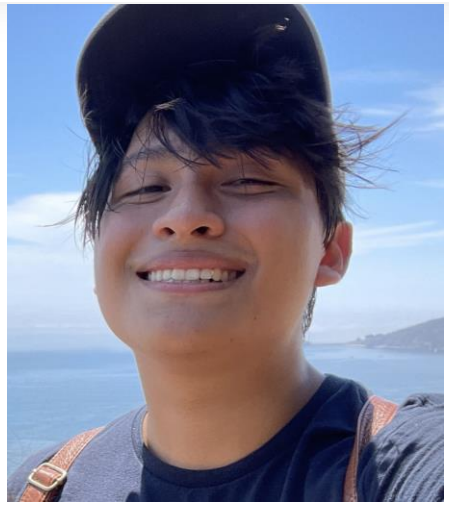
Meet Our Backend Development

Sandra Mata

- Education:
  - BC Computer Science Student
- Role:
  - Database Architect

Jerica Crowder

- Education:
  - BC Computer Science Student
- Role:
  - Data Validation Engineer



Alonso Cardenas

- Education:
  - CSUB Computer Engineering Student
- Role:
  - QR Code Retrieval Developer

Thank you!

- To Kern Medical for giving us this amazing opportunity
- MESA for teaching us the importance values of communication and integrity

- Any Questions?

Meet Our Team Leaders

Austin Chan

- Education:
  - UCB Electrical Engineering and Computer Science Student
- Role:
  - Team Lead
  - PDF/Excel Function Developer

Harlan Phillips

- Education:
  - UCB Electrical Engineering and Computer Science Student
- Role:
  - Backend Lead
  - CRUD Operations Specialist

Valeria Cedillo Sanchez

- Education:
  - SDSU Computer Engineering Student
- Role:
  - Frontend Lead
  - Frontend Developer