CODE *for* VENEZUELA

LENTE-SALUD

TRACK 3:
PUBLIC HEALTH PROFESSIONALS

TEAM:
ORO AZUL

GOAL:
ACCESSIBLE VISUALIZATION
OF REAL-TIME REPORTING
OF VENEZUELA'S HEALTH

TEAM

JOHANNES GLATZ   SHEETHAL MELNARSE   GONZALO AVILA   JUNE TSENG   FRANCESCO STUMPO GUILLEN

CONTEXT

DATA

GOOGLE FORM

GOOGLE SURVEY

100%
TAILORED INFORMATION AND VARIABLES TO OUR AUDIENCE

AUDIENCE TARGET

ADMINS

EPIDEMIOLOGISTS.
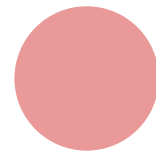
NEW MATRIX

INFRASTRUCTURE

OPERATIONS

HUMANITARIAN

HUMANITARIAN
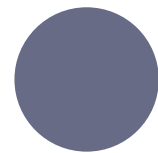
CATEGORIES:

Attention Quality
Personnel Availability in Emergency

SECTIONS:

er_staff_residents_and_rural_day_on_call
er_staff_specialist_day_on_call
er_staff_mic_day_on_call
er_staff_nurse_day_on_call
er_staff_non_professional_nurse_day_on_call
er_staff_residents_and_rural_night_on_call
er_staff_specialist_night_on_call
er_staff_mic_night_on_call
pneumonia_antibiotic_therapy_latency
mi_thrombolytic_treatment_latency
er_staff_nurse_night_on_call
er_staff_non_professional_nurse_night_on_call

OPERATIONS

CATEGORIES:

Operations
General Operability
Specific Operability
Dialysis
Nutrition

SECTIONS:

operability_icu
operatilids
er_staff_non_professional_nurse_night_on_call
operability_icu_p
rrt_avail_high_flow_catheters
operability_er
operability_sx
operability_lab
operability_uls
operability_ct_mri
operability_xr

er_avail_adrenalin
er_avail_atropine
er_avail_dopamine
er_avail_cephalosporins_betalactams
er_avail_aminoglycosides_quinolone
er_avail_vancomycin_clindamycin
er_avail_lidocaine
er_avail_minor_opioids
er_avail_major_opioids
er_avail_iv_fluids
er_avail_diazepam_dph
er_avail_heparin
er_avail_steroids
er_avail_insulin
er_avail_asthma
er_avail_blood_pressure
er_avail_defibrillator
er_avail_ott_intubation
er_avail_catheter
er_avail_oxygen_suction
sx_avail_minor_opioids
sx_avail_major_opioids

sx_avail_anesthetic_gases
sx_avail_anesthetics_iv
sx_avail_relaxants
sx_avail_ott_intubation
sx_avail_patient_lingerie_kit
sx_avail_disposables_mask_gloves_gown
sx_avail_oxygen_suction
rrt_avail
rrt_operability
rrt_date_stopped_operability
rrt_reason_stopped_operability
rrt_avg_daily_patients
rrt_peritoneal_count
rrt_peritoneal_reason_not_performed
rrt_num_hemodialysis
rrt_num_hemodialysis_acute
rrt_num_hemodialysis_chronic
rrt_num_hemodialysis_equipments
rrt_num_hemodialysis_equipments_operability
rrt_hemodialysis_avail_filter
arch_beds_count
rrt_hemodialysis_avail_lines

CODE for VENEZUELA

INFRASTRUCTURE

CATEGORIES:

Public Service
Mortality Impact
Violence and Protests
Epidemiology

SECTIONS:

power_outage_equipment_failure_specify
power_generator_available
power_outage_mortatility
power_outage_deaths_count
power_outage_equipment_failure
power_outage_avg_duration
power_outage_days_count
power_outage_avg_failures_per_day
power_outage

epidemiological_emergency_suspected_diseases
staff_violence_affected_reasons
strike_medical_staff_affected
strike_nurses_affected
strike_other_staff_affected
strike_patients_affected
strike_other_affected
nCoV_face_mask_avail
nCoV_respiratory_isolation_protocol_avail
nCoV_isolation_area_avail
mortality_hospital_failure_cardiovascular_count
mortality_hospital_failure_cardiovascular_cause
mortality_hospital_failure_trauma_count
mortality_hospital_failure_trauma_cause
wahs_failure_sx
wash_failure_er
wash_failure_icu

CODE for VENEZUELA

CHALLENGE

BUILD A DASHBOARD

DESIGN TOWARDS M.U.I
(MAXIMUM USER INTERACTION)
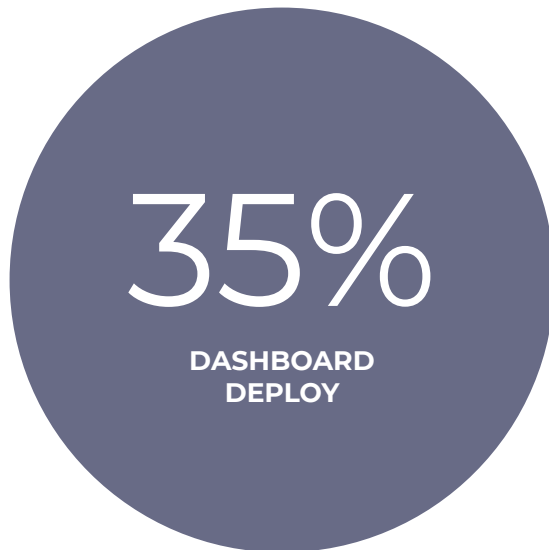
PRESENT VARIABLES & QUESTIONS

CONDUCT DATA ANALYSIS

DATA EXPLORATION

APPROPRIATE STATISTICAL TECHNIQUES

LIVE DASHBOARD

EASY NAVIGATION

MINIMAL EFFORTS

35%

**DASHBOARD
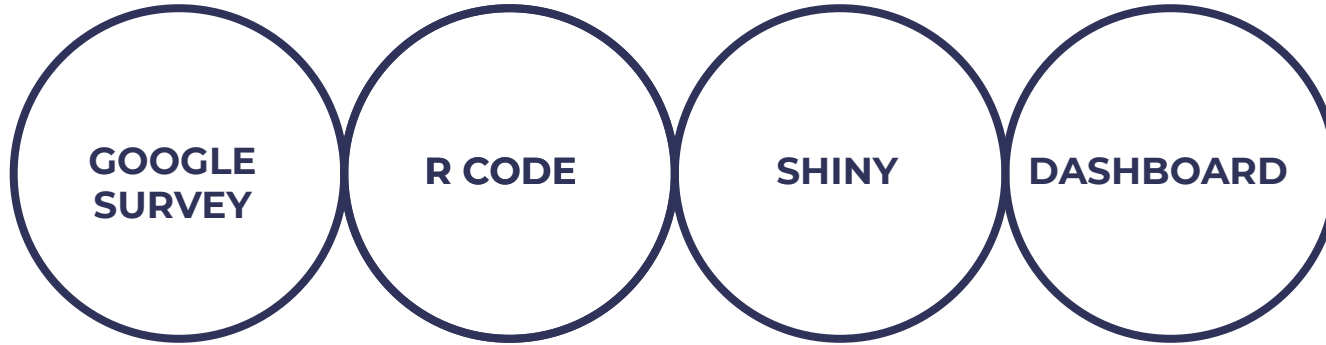DEPLOY**

CAVEATS

NOT ALL HOSPITALS ARE REPORTING
CONSISTENTLY

VARIABLES HAVE DISCREPANCIES OR
CONFLICTING INFORMATION

NO STANDARDIZED INPUTS
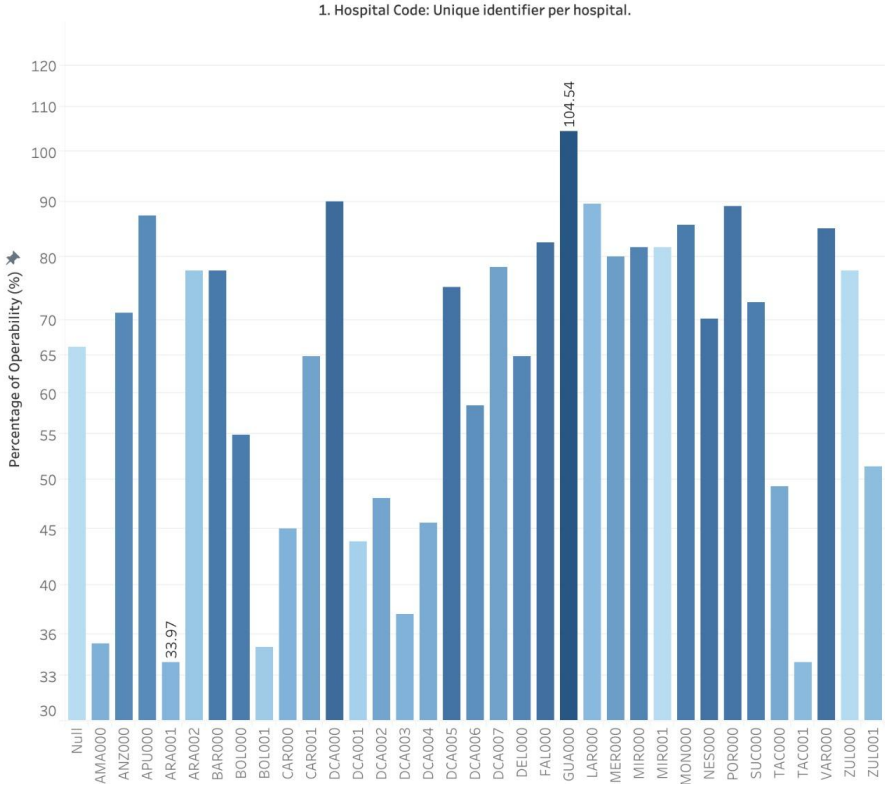
DESIGN STEPS & ARCHITECTURE

PROCESS:

AVAILABLE:

GOOGLE SURVEY → **R CODE** → **SHINY** → **DASHBOARD**

DEVPOST GIT

DASHBOARD EXAMPLE

1. Hospital Code: Unique identifier per hospital.

APPROACH CRITERIA

DEPLOYABILITY

IN COMPARISON TO
SCHOOL PROJECTS,
BUILD AN ACTUALLY
REAL LIFE DEPLOYABLE /
DEPLOYED PRODUCT,
THAT GIVES ACCESS TO
REAL-TIME DATA

SCALABILITY

RATHER THAN BUILDING
A ONE-TIME PRODUCT,
THAT CANNOT BE
REPRODUCED OR
ACCESSED BY OTHERS,
WE BUILT A LIVE
ACCESSIBLE DATA
LIBRARY, ACCESSIBLE
VIA A LINK!

COMPLETENESS

PROVIDE A FULL-LOOP
INFORMATION BACK
END

PRODUCT SUCCESS

SOLUTION IS REPRODUCIBLE

CODE IS UPDATED ON-REAL-TIME