

OEC 2021 Planning Document - Team Java

Find risk correlation for all students, teaching assistants, and teachers for ZBY1 at the school.

Decide on a platform for analyzing the excel file. -> Python is the best platform according to research and experience.

Pandas library is well suited to excel file processing and will be used here.

Job Assignment

Pruthvi -> Find requirements for the tracker /Load Excel Data into Python/

Rhys -> Find requirements for the tracker //

Lazar -> Find requirements for the tracker /Determine Transmission Rates, Assumptions, make sure everyone's on the same page/

Naman -> Find requirements for the tracker /Work on Tracker Logic/

Do students meet with other students (in other grades) during lunch? What are the odds they do this?

These odds (as well as health conditions) affect whether they contract the virus based on percent increases.

BASE TRANSMISSION FACTORS

Activity	Transmission Factor
Close contact: Class Lunch break Drama club BG Club Teacher's lounge	3

Medium contact: CS Club VG Club Siblings going home together	2
Sports Band Choir	4
Period 1,2 (no infected)	0

CONTRACTION CHANCE

Condition	% increase
Health condition	70
(-)1 year age difference	25
(-)2 year age difference	50
(-)3 year age difference	75
Teacher <-> TA	70
Student <-> Teacher/TA	-20

Assumptions

**Having a health condition increases chances of being one of the X people who get transmitted to.

**Assuming extracurricular activities have longer incubation periods than class and lunch (contrary to the assumption in the amendments)

**Assuming siblings going home together is a medium contact activity

**A classroom's cleanliness is a function of the percentage of infected people AT THE START of the previous class. The next people in that class receive an additional chance of contracting the virus equal to the chance that any student in the last class would contract the virus.

i.e. Period 2 class with 0 infected during period 1 will not contribute any contraction chance.

**teacher/TA to student interaction is minimal. The odds of teachers or TAs contracting specifically from students is lower, but the base factor towards each other is unchanged.

**during lunch assume random groups of 5, within each grade