

1 Objective

Develop a 3-year (+) track and course planner for (incoming) UCR students.

2 Motivation

To allow incoming and current students to plan out their time in UCR.

3 THE PLAN

Deployment

Feedback

Backend Logic

Interactivity & Other Functionalities

App & UI development

Data Collection & Preparation



Shift Schedule Optimization Application

Select problem data source: ☒ Generate random data ☐ Upload problem data

Employees: 5 Shifts per Day: 6 Plan Days: 7

☒ Limit consecutive shift assignment

Shifts per Employee: 9 Max Consecutive Shifts per Employee on any day: 2

Optimization Status: Iterations: optimal Objective value: 16

Employee Preferences: Employee: Emmett

Shift	Day-1	Day-2	Day-3	Day-4	Day-5	Day-6	Day-7
1	2	2	2	2	0	0	0
2	1	2	2	1	0	1	0
3	0	0	0	0	1	1	1
4	2	0	0	2	1	2	2
5	1	0	0	2	0	1	2
6	2	1	0	1	2	1	2

Optimized Schedule: Employee: Emmett

Shift	Day-1	Day-2	Day-3	Day-4	Day-5	Day-6	Day-7
1	Joshua (2)	Emmett (2)	Jessica (2)	Emmett (2)	Joshua (2)	Brooke (1)	Brianna (2)
2	Brianna (2)	Joshua (2)	Emmett (2)	Brianna (2)	Brianna (2)	Jessica (2)	Brianna (1)
3	Joshua (2)	Jessica (1)	nobody (0)	Brooke (2)	Jessica (2)	Brianna (2)	Brooke (2)
4	Jessica (2)	Brooke (1)	Brooke (2)	Emmett (2)	Brooke (2)	Jessica (2)	Emmett (2)
5	Emmett (1)	Brooke (1)	Brianna (2)	Emmett (2)	Brooke (1)	Brianna (2)	Jessica (2)
6	Emmett (2)	Brianna (2)	Joshua (2)	Brooke (2)	Jessica (2)	Joshua (2)	Emmett (2)

Showing 1 to 6 of 6 entries

Calendar Planner

Duration: From: 2019-03-25 To: 2019-04-24

Tracks

Name	From	To	Colour
Vacation	2019-03-25	2019-04-24	#BEBADA
Offline	2019-03-25	2019-04-24	#FB8072

Track colour (Available): #8DD3C7 Track colour (Weekend): #D9D9D9

Settings

Legend position: right

Legend justification: right Legend direction: vertical

Theme font size: 8 Date font size: 2.5

Month font size: 8 Legend font size: 5



University Course Scheduler

Select your courses:

☒ Math ☐ English ☒ Science

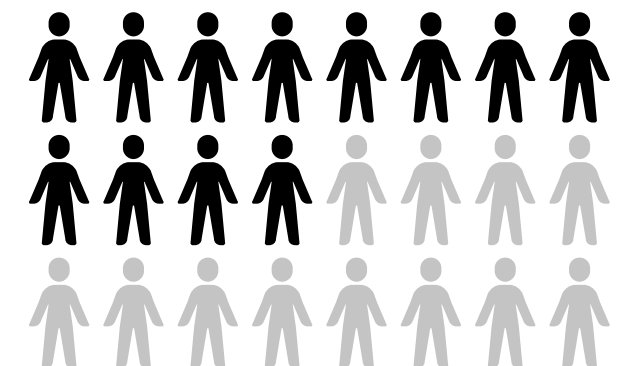
Select your major:

Computer Science

Course	Major
math	cs
science	cs

4 For the future

- AI/ML integration.
- A suggestion tool for courses.
- Determine the most user-friendly output/layout for the application.



5 SOME RESULTS

