

Project: Milestone 2

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1. Overview

Currently, my website is a simple UI that prompts users to register for courses. The information to keep track of the registration information is being stored in a database via the back-end. The project is written with a combination of Node, React, JavaScript, HTML, and CSS. It is using the Express framework. The database is being hosted on Clever-Cloud, the backend is being hosted on Render.com, and the frontend is being hosted on Firebase.

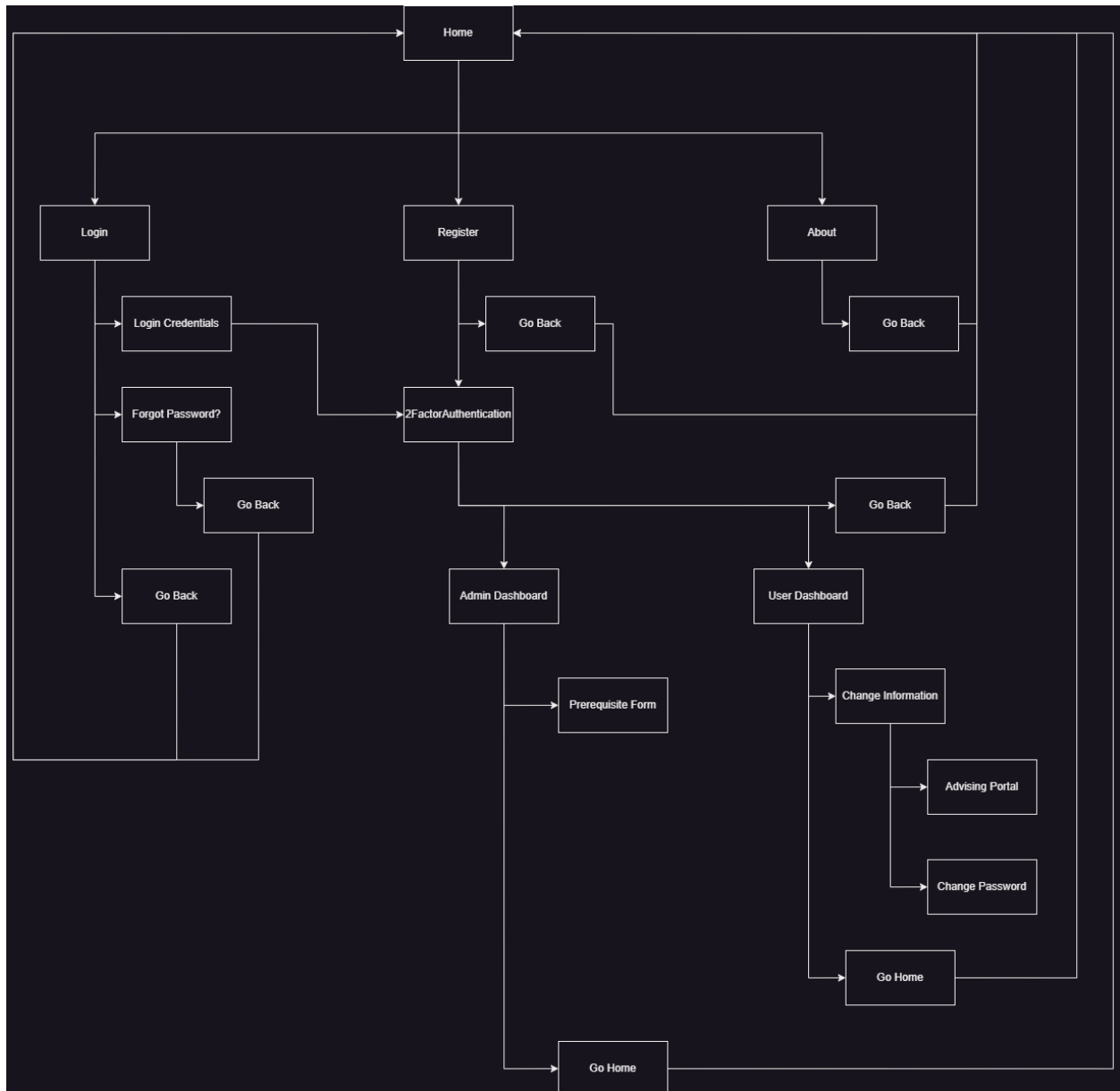
2. Milestone Accomplishments

Fulfilled	Feature #	Specification
Yes	1	Design and create the prerequisite form for admin, displaying courses from levels 100 to 499 with fields: Level, Course, Enable/Disable
Yes	2	Update database based on the admin's selection of prerequisites.
Yes	3	Implement an Advising menu accessible upon student login.
Yes	4	Design and create the “ Course Advising History ” form to display previously submitted records or indicate no records. Records will show in the list. You must show the below columns
Yes	5	Develop a form for creating new “ Course Advising ” form with three sections: History, prerequisites, and course plan.
Yes	6	Implement the History section with fields: Last Term, Last GPA, Advising Term.
Yes	7	Enable dynamic addition of rows for prerequisites section with fields: Level, Course Name. (both fields will be dropdown)
Yes	8	Enable dynamic addition of rows for the course section with fields: Level, Course Name. (both fields will be dropdown)
No	9	Implement rules for course selection, preventing the addition of courses previously taken in the previous terms.
Yes	10	Implement functionality to save new entries so that newly created records are displayed in the 'Course Advising History' form with a Pending status.
No	11	When a user clicks on any record displayed in point 4 , they should be redirected to the Course Advising form with the selected record pre-populated. Additionally, if the status of the record is 'approved' or 'rejected,' the record should be frozen and not editable. If the status is 'pending,' the user can make changes and save the record.
Yes	12	Deploy your Frontend, Backend and Database on server and your demo should be demonstrate from live server. (For milestone 2 and milestone 3).

3. Architecture

Like I mentioned in the overview, this project uses the Express framework and was written with a combination of Node, React, JavaScript, HTML, and CSS.

Below is a diagram that illustrates the layout of my website.



4. Database Design

Here is the sql code that was directly exported from PHPMysqladmin:

```
1 -- phpMyAdmin SQL Dump
2 -- version 5.2.1
3 -- https://www.phpmyadmin.net/
4 --
5 -- Host: bicfvh0vsyey7f7lgwca-mysql.services.clever-cloud.com:3306
6 -- Generation Time: Nov 09, 2024 at 03:28 AM
7 -- Server version: 8.0.22-13
8 -- PHP Version: 8.2.21
9
10 SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";
11 START TRANSACTION;
12 SET time_zone = "+00:00";
13
14
15 /*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
16 /*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
17 /*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
18 /*!40101 SET NAMES utf8mb4 */;
19
20 --
21 -- Database: 'bicfvh0vsyey7f7lgwca'
22 --
23 CREATE DATABASE IF NOT EXISTS 'bicfvh0vsyey7f7lgwca' DEFAULT CHARACTER SET
utf8 COLLATE utf8_general_ci;
24 USE 'bicfvh0vsyey7f7lgwca';
25
26 -----
27
28 --
29 -- Table structure for table 'course'
30 --
31
32 CREATE TABLE 'course' (
33 'course_id' int NOT NULL,
34 'course_tag' varchar(255) COLLATE utf8mb4_general_ci NOT NULL,
35 'course_name' varchar(255) COLLATE utf8mb4_general_ci NOT NULL,
36 'credit_hours' int NOT NULL
37 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
38
```

```

39 --
40 -- Dumping data for table 'course'
41 --
42
43 INSERT INTO 'course' ('course_id', 'course_tag', 'course_name', 'credit_hours
44 ') VALUES
45 (1, 'ENGL 110C', 'English Composition', 3),
46 (2, 'MATH 211', 'Calculus I', 4),
47 (3, 'MATH 163', 'Precalculus II', 3),
48 (4, 'MATH 162M', 'Precalculus I', 3),
49 (5, 'MATH 102M', 'College Algebra', 3),
50 (6, 'MATH 103M', 'College Algebra with Supplemental Instruction', 3),
51 (7, 'MATH 100', 'The Math Cooperative', 1),
52 (8, 'MATH 166', 'Precalculus I and II', 4),
53 (9, 'CS 151', 'Introduction to Programming with Java', 4),
54 (10, 'CS 153', 'Introduction to Programming with Python', 4),
55 (11, 'ENGL 211C', 'Writing, Rhetoric, and Research', 3),
56 (12, 'ENGL 231C', 'Writing, Rhetoric, and Research: Special Topics', 3),
57 (13, 'MATH 212', 'Calculus II', 4),
58 (14, 'CS 170', 'Introduction to Computer Architecture I', 3),
59 (15, 'CS 150', 'Introduction to Programming with C++', 4),
60 (16, 'ENGN 150', 'Computer Programming for Engineering Problem Solving', 4),
61 (17, 'CS 251', 'Programming with Java', 4),
62 (18, 'CS 252', 'Introduction to Unix for Programmers', 1),
63 (19, 'IT 205', 'Introduction to Object-Oriented Programming', 3),
64 (20, 'MATH 316', 'Introductory Linear Algebra', 3),
65 (21, 'CS 270', 'Introduction to Computer Architecture II', 3),
66 (22, 'CS 330', 'Object-Oriented Design and Programming', 3),
67 (23, 'CS 253', 'Transfer Credit for Programming with Python', 4),
68 (24, 'CS 250', 'Programming with C++', 4),
69 (25, 'COMM 101R', 'Public Speaking', 3),
70 (26, 'PHIL 160R', 'Raising Moral Issues in STEM', 3),
71 (27, 'STAT 330', 'An Introduction to Probability and Statistics', 3),
72 (28, 'CS 260', 'C++ for Programmers', 1),
73 (29, 'CS 361', 'Data Structures and Algorithms', 3),
74 (30, 'CS 261', 'Java for Programmers', 1),
75 (31, 'CS 121G', 'Introduction to Information Literacy and Research for
Scientists', 3),
76 (32, 'CS 202G', 'Information Literacy for Cybersecurity', 3),

```

```

76 (33, 'CS 315', 'Computer Science Undergraduate Colloquium', 1),
77 (34, 'CS 355', 'Principles of Programming Languages', 3),
78 (35, 'CS 381', 'Introduction to Discrete Structures', 3),
79 (36, 'CS 350', 'Introduction to Software Engineering', 3),
80 (37, 'CS 390', 'Introduction to Theoretical Computer Science', 3),
81 (38, 'CS 450', 'Database Concepts', 3),
82 (39, 'CS 418', 'Web Programming', 3),
83 (40, 'CS 312', 'Internet Concepts', 3),
84 (41, 'CS 410', 'Professional Workforce Development I', 3),
85 (42, 'CS 417', 'Computational Methods and Software', 3),
86 (43, 'CS 411W', 'Professional Workforce Development II', 3),
87 (44, 'ENGL 221C', 'Introduction to Writing in Business, Education and Social
Sciences', 3),
88 (45, 'CS 471', 'Operating Systems', 3),
89 (46, 'ECE 346', 'Microcontrollers', 3),
90 (47, 'ECE 241', 'Fundamentals of Computer Engineering', 4),
91 (48, 'ENGN 122', 'Computer Programming for Engineering', 4),
92 (49, 'ECE 443', 'Computer Architecture', 3),
93 (50, 'ECE 342', 'Field Programmable Gate Arrays Design Laboratory', 2),
94 (51, 'ECE 341', 'Digital System Design', 3);
95
96 -----
97
98 --
99 -- Table structure for table 'course_mapping'
100 --
101
102 CREATE TABLE 'course_mapping' (
103 'course_mapping_id' int NOT NULL,
104 'advising_id' int NOT NULL,
105 'course_id' int NOT NULL
106 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
107
108 -----
109
110 --
111 -- Table structure for table 'course_prereqs'
112 --
113
114 CREATE TABLE 'course_prereqs' (
115 'course_id' int NOT NULL,

```

```
116 'prereq_set_num' int NOT NULL
117 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
118
119 --
120 -- Dumping data for table 'course_prereqs'
121 --
122
123 INSERT INTO 'course_prereqs' ('course_id', 'prereq_set_num') VALUES
124 (0, 0),
125 (1, 1),
126 (2, 2),
127 (3, 3),
128 (4, 4),
129 (5, 5),
130 (6, 6),
131 (7, 7),
132 (8, 8),
133 (9, 9),
134 (10, 10),
135 (11, 11),
136 (12, 12),
137 (13, 13),
138 (14, 14),
139 (15, 15),
140 (16, 16),
141 (17, 17),
142 (18, 18),
143 (19, 19),
144 (20, 20),
145 (21, 21),
146 (22, 22),
147 (23, 23),
148 (24, 24),
149 (25, 25),
150 (26, 26),
151 (27, 27),
152 (28, 28),
153 (29, 29),
154 (30, 30),
```

```

155 (31, 31),
156 (32, 32),
157 (33, 33),
158 (34, 34),
159 (35, 35),
160 (36, 36),
161 (37, 37),
162 (38, 38),
163 (39, 39),
164 (40, 40),
165 (41, 41),
166 (42, 42),
167 (43, 43),
168 (44, 44),
169 (45, 45),
170 (46, 46),
171 (47, 47),
172 (48, 48),
173 (49, 49),
174 (50, 50),
175 (51, 51);
176
177 -----
178
179 --
180 -- Table structure for table 'course_sets'
181 --
182
183 CREATE TABLE 'course_sets' (
184 'course_set_num' int NOT NULL,
185 'course_id' int NOT NULL
186 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
187
188 -----
189
190 --
191 -- Table structure for table 'prerequisites'
192 --
193
194 CREATE TABLE 'prerequisites' (
195 'prereq_id' int NOT NULL,

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```

196 'prereq_level' int NOT NULL,
197 'prereq_tag' varchar(255) COLLATE utf8mb4_general_ci NOT NULL,
198 'prereq_name' varchar(255) COLLATE utf8mb4_general_ci NOT NULL,
199 'credit_hours' int NOT NULL,
200 'enable_disable' tinyint NOT NULL
201 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
202
203 --
204 -- Dumping data for table 'prerequisites'
205 --
206
207 INSERT INTO 'prerequisites' ('prereq_id', 'prereq_level', 'prereq_tag', '
prereq_name', 'credit_hours', 'enable_disable') VALUES
208 (1, 0, "", "", 0, 0),
209 (2, 100, 'ENGL 110C', 'English Composition', 3, 1),
210 (3, 200, 'MATH 211', 'Calculus I', 4, 0),
211 (4, 100, 'MATH 163', 'Precalculus II', 3, 1),
212 (5, 100, 'MATH 162M', 'Precalculus I', 3, 0),
213 (6, 100, 'MATH 102M', 'College Algebra', 3, 1),
214 (7, 100, 'MATH 103M', 'College Algebra with Supplemental Instruction', 3, 1),
215 (8, 100, 'MATH 100', 'The Math Cooperative', 1, 0),
216 (9, 100, 'MATH 166', 'Precalculus I and II', 4, 1),
217 (10, 100, 'CS 151', 'Introduction to Programming with Java', 4, 0),
218 (11, 100, 'CS 153', 'Introduction to Programming with Python', 4, 1),
219 (12, 200, 'ENGL 211C', 'Writing, Rhetoric, and Research', 3, 0),
220 (13, 200, 'ENGL 231C', 'Writing, Rhetoric, and Research: Special Topics', 3,
0),
221 (14, 200, 'MATH 212', 'Calculus II', 4, 1),
222 (15, 100, 'CS 170', 'Introduction to Computer Architecture I', 3, 0),
223 (16, 100, 'CS 150', 'Introduction to Programming with C++', 4, 1),
224 (17, 100, 'ENGN 150', 'Computer Programming for Engineering Problem Solving',
4, 1),
225 (18, 200, 'CS 251', 'Programming with Java', 4, 1),
226 (19, 200, 'CS 252', 'Introduction to Unix for Programmers', 1, 0),
227 (20, 200, 'IT 205', 'Introduction to Object-Oriented Programming', 3, 0),
228 (21, 300, 'MATH 316', 'Introductory Linear Algebra', 3, 0),
229 (22, 200, 'CS 270', 'Introduction to Computer Architecture II', 3, 0),
230 (23, 300, 'CS 330', 'Object-Oriented Design and Programming', 3, 1),
231 (24, 200, 'CS 253', 'Transfer Credit for Programming with Python', 4, 1),

```



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232 (25, 200, 'CS 250', 'Programming with C++', 4, 0),
233 (26, 100, 'COMM 101R', 'Public Speaking', 3, 0),
234 (27, 100, 'PHIL 160R', 'Raising Moral Issues in STEM', 3, 0),
235 (28, 300, 'STAT 330', 'An Introduction to Probability and Statistics', 3, 1),
236 (29, 200, 'CS 260', 'C++ for Programmers', 1, 0),
237 (30, 300, 'CS 361', 'Data Structures and Algorithms', 3, 0),
238 (31, 200, 'CS 261', 'Java for Programmers', 1, 1),
239 (32, 100, 'CS 121G', 'Introduction to Information Literacy and Research for
Scientists', 3, 1),
240 (33, 200, 'CS 202G', 'Information Literacy for Cybersecurity', 3, 1),
241 (34, 300, 'CS 315', 'Computer Science Undergraduate Colloquium', 1, 0),
242 (35, 300, 'CS 355', 'Principles of Programming Languages', 3, 0),
243 (36, 300, 'CS 381', 'Introduction to Discrete Structures', 3, 1),
244 (37, 300, 'CS 350', 'Introduction to Software Engineering', 3, 0),
245 (38, 300, 'CS 390', 'Introduction to Theoretical Computer Science', 3, 1),
246 (39, 400, 'CS 450', 'Database Concepts', 3, 0),
247 (40, 400, 'CS 418', 'Web Programming', 3, 1),
248 (41, 300, 'CS 312', 'Internet Concepts', 3, 0),
249 (42, 400, 'CS 410', 'Professional Workforce Development I', 3, 0),
250 (43, 400, 'CS 417', 'Computational Methods and Software', 3, 1),
251 (44, 400, 'CS 411W', 'Professional Workforce Development II', 3, 0),
252 (45, 200, 'ENGL 221C', 'Introduction to Writing in Business, Education and
Social Sciences', 3, 0),
253 (46, 400, 'CS 471', 'Operating Systems', 3, 1),
254 (47, 300, 'ECE 346', 'Microcontrollers', 3, 0),
255 (48, 200, 'ECE 241', 'Fundamentals of Computer Engineering', 4, 1),
256 (49, 100, 'ENGN 122', 'Computer Programming for Engineering', 4, 0),
257 (50, 400, 'ECE 443', 'Computer Architecture', 3, 1),
258 (51, 300, 'ECE 342', 'Field Programmable Gate Arrays Design Laboratory', 2, 1)
,
259 (52, 300, 'ECE 341', 'Digital System Design', 3, 1);
260
261 -----
262
263 --
264 -- Table structure for table 'prerequisite_sets'
265 --
266
267 CREATE TABLE 'prerequisite_sets' (

```

```
268 'prereq_set_num' int NOT NULL,
269 'prereq_id' int NOT NULL
270 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
271
272 --
273 -- Dumping data for table 'prerequisite_sets'
274 --
275
276 INSERT INTO 'prerequisite_sets' ('prereq_set_num', 'prereq_id') VALUES
277 (0, 0),
278 (1, 1),
279 (2, 4),
280 (3, 5),
281 (4, 6),
282 (5, 1),
283 (6, 8),
284 (7, 1),
285 (8, 6),
286 (9, 5),
287 (10, 5),
288 (11, 2),
289 (12, 2),
290 (13, 3),
291 (14, 5),
292 (14, 16),
293 (15, 5),
294 (16, 4),
295 (17, 4),
296 (17, 16),
297 (18, 16),
298 (19, 1),
299 (20, 14),
300 (21, 15),
301 (22, 19),
302 (22, 25),
303 (23, 1),
304 (24, 4),
305 (24, 16),
306 (25, 1),
```

307 (26, 1),
308 (27, 3),
309 (28, 18),
310 (29, 19),
311 (29, 3),
312 (29, 18),
313 (30, 25),
314 (31, 1),
315 (32, 2),
316 (33, 16),
317 (34, 19),
318 (34, 25),
319 (35, 4),
320 (35, 16),
321 (36, 19),
322 (36, 23),
323 (37, 36),
324 (37, 25),
325 (38, 19),
326 (38, 36),
327 (38, 23),
328 (39, 41),
329 (39, 23),
330 (40, 19),
331 (41, 23),
332 (42, 21),
333 (42, 25),
334 (43, 23),
335 (43, 37),
336 (43, 42),
337 (43, 12),
338 (44, 2),
339 (45, 17),
340 (45, 47),
341 (46, 48),
342 (47, 16),
343 (48, 4),
344 (49, 47),

```

345 (49, 51),
346 (50, 52),
347 (50, 47),
348 (51, 48);
349
350 -----
351
352 --
353 -- Table structure for table 'prerequisite_status'
354 --
355
356 CREATE TABLE 'prerequisite_status' (
357 'prereq_id' int NOT NULL,
358 'enable/disable' tinyint NOT NULL
359 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
360
361 -----
362
363 --
364 -- Table structure for table 'prereq_mapping'
365 --
366
367 CREATE TABLE 'prereq_mapping' (
368 'prereq_mapping_id' int NOT NULL,
369 'advising_id' int NOT NULL,
370 'prereq_id' int NOT NULL
371 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
372
373 -----
374
375 --
376 -- Table structure for table 'records'
377 --
378
379 CREATE TABLE 'records' (
380 'advising_id' bigint NOT NULL,
381 'user_id' bigint NOT NULL,
382 'last_term' varchar(255) COLLATE utf8mb4_general_ci NOT NULL,
383 'last_gpa' double NOT NULL,
384 'current_term' varchar(255) COLLATE utf8mb4_general_ci NOT NULL,
385 'status' varchar(255) COLLATE utf8mb4_general_ci NOT NULL,
386 'date_submitted' date NOT NULL

```

```

387 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
388
389 --
390 -- Dumping data for table 'records'
391 --
392
393 INSERT INTO 'records' ('advising_id', 'user_id', 'last_term', 'last_gpa', '
current_term', 'status', 'date_submitted') VALUES
394 (0, 0, 'Placeholder_Last_Term', 0, 'Placeholder_Current_Term', '
Placeholder_Status', '2024-11-08'),
395 (1, 1, 'Placeholder_Last_Term01', 1, 'Placeholder_Current_Term01', '
Placeholder_Status01', '2024-11-08'),
396 (2, 2, 'Placeholder_Last_Term02', 2, 'Placeholder_Current_Term02', '
Placeholder_Status02', '2024-11-08');
397
398 -----
399
400 --
401 -- Table structure for table 'semester'
402 --
403
404 CREATE TABLE 'semester' (
405 'semester_id' int NOT NULL,
406 'semester_term' varchar(255) COLLATE utf8mb4_general_ci NOT NULL
407 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
408
409 -----
410
411 --
412 -- Table structure for table 'semester_courses'
413 --
414
415 CREATE TABLE 'semester_courses' (
416 'user_id' bigint NOT NULL,
417 'semester_id' int NOT NULL,
418 'course_set_num' int NOT NULL
419 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
420
421 -----
422
423 --
424 -- Table structure for table 'semester_status'

```

```

425 --
426
427 CREATE TABLE 'semester_status' (
428 'user_id' bigint NOT NULL,
429 'semester_id' int NOT NULL,
430 'request_id' int NOT NULL,
431 'semester_gpa' double NOT NULL
432 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
433
434 -----
435
436 --
437 -- Table structure for table 'semester_status_request'
438 --
439
440 CREATE TABLE 'semester_status_request' (
441 'request_id' int NOT NULL,
442 'status' varchar(255) COLLATE utf8mb4_general_ci NOT NULL,
443 'request_date' date NOT NULL,
444 'previous_term' varchar(255) COLLATE utf8mb4_general_ci NOT NULL,
445 'current_term' varchar(255) COLLATE utf8mb4_general_ci NOT NULL
446 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
447
448 --
449 -- Dumping data for table 'semester_status_request'
450 --
451
452 INSERT INTO 'semester_status_request' ('request_id', 'status', 'request_date',
453 'previous_term', 'current_term') VALUES
454 (1, '', '0000-00-00', '', '');
455 -----
456
457 --
458 -- Table structure for table 'user_information'
459 --
460
461 CREATE TABLE 'user_information' (
462 'user_id' bigint NOT NULL,
463 'First_Name' varchar(255) COLLATE utf8mb4_general_ci NOT NULL,
464 'Last_Name' varchar(255) COLLATE utf8mb4_general_ci NOT NULL,
465 'Email' varchar(255) COLLATE utf8mb4_general_ci NOT NULL,

```

```

466 'Password' varchar(255) COLLATE utf8mb4_general_ci NOT NULL,
467 'Is_Admin' tinyint(1) NOT NULL DEFAULT '0'
468 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
469
470 --
471 -- Dumping data for table 'user_information'
472 --
473
474 INSERT INTO 'user_information' ('user_id', 'First_Name', 'Last_Name', 'Email',
'Password', 'Is_Admin') VALUES
475 (76, 'Sean', 'Allgaier', 'sean.g.allgaier.99@gmail.com', '
$2b$10$zf4d0aa7KHIF1KQ.eCjNLeqoDR74xyWRBjIBjHE.wNfDF6AAJzhze', 1),
476 (77, 'Sean', 'Allgaier', 'seanallgaier@yahoo.com', '$2b$10$rMhUXJ/
XDtkQWKMD1drdJOow0DACuvbt7UsnLVWYGqkSeBFoPunly', 0),
477 (78, 'Sean', 'Allgaier', 'sallg001@odu.edu', '$2b$10$TRFZxlo7SQ/
AVbJyyGhZkezcG94sNz.SnO43HODLiSzXcMvC4L7Te', 0);
478
479 --
480 -- Indexes for dumped tables
481 --
482
483 --
484 -- Indexes for table 'course'
485 --
486 ALTER TABLE 'course'
487 ADD PRIMARY KEY ('course_id');
488
489 --
490 -- Indexes for table 'course_sets'
491 --
492 ALTER TABLE 'course_sets'
493 ADD KEY 'course_id' ('course_id');
494
495 --
496 -- Indexes for table 'prerequisites'
497 --
498 ALTER TABLE 'prerequisites'
499 ADD PRIMARY KEY ('prereq_id');
500
501 --
502 -- Indexes for table 'semester'

```

```
503 --
504 ALTER TABLE 'semester'
505 ADD PRIMARY KEY ('semester_id');
506
507 --
508 -- Indexes for table 'semester_courses'
509 --
510 ALTER TABLE 'semester_courses'
511 ADD KEY 'semester_id' ('semester_id'),
512 ADD KEY 'user_id' ('user_id');
513
514 --
515 -- Indexes for table 'semester_status'
516 --
517 ALTER TABLE 'semester_status'
518 ADD KEY 'semester_id' ('semester_id'),
519 ADD KEY 'user_id' ('user_id'),
520 ADD KEY 'request_id' ('request_id');
521
522 --
523 -- Indexes for table 'semester_status_request'
524 --
525 ALTER TABLE 'semester_status_request'
526 ADD PRIMARY KEY ('request_id');
527
528 --
529 -- Indexes for table 'user_information'
530 --
531 ALTER TABLE 'user_information'
532 ADD PRIMARY KEY ('user_id');
533
534 --
535 -- AUTO_INCREMENT for dumped tables
536 --
537
538 --
539 -- AUTO_INCREMENT for table 'course'
540 --
541 ALTER TABLE 'course'
542 MODIFY 'course_id' int NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=54;
543
```



```

544 --
545 -- AUTO_INCREMENT for table 'prerequisites'
546 --
547 ALTER TABLE 'prerequisites'
548 MODIFY 'prereq_id' int NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=53;
549
550 --
551 -- AUTO_INCREMENT for table 'semester'
552 --
553 ALTER TABLE 'semester'
554 MODIFY 'semester_id' int NOT NULL AUTO_INCREMENT;
555
556 --
557 -- AUTO_INCREMENT for table 'semester_status_request'
558 --
559 ALTER TABLE 'semester_status_request'
560 MODIFY 'request_id' int NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=2;
561
562 --
563 -- AUTO_INCREMENT for table 'user_information'
564 --
565 ALTER TABLE 'user_information'
566 MODIFY 'user_id' bigint NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=79;
567
568 --
569 -- Constraints for dumped tables
570 --
571
572 --
573 -- Constraints for table 'course_sets'
574 --
575 ALTER TABLE 'course_sets'
576 ADD CONSTRAINT 'course_sets_ibfk_1' FOREIGN KEY ('course_id') REFERENCES '
course' ('course_id');
577
578 --
579 -- Constraints for table 'semester_courses'
580 --
581 ALTER TABLE 'semester_courses'
582 ADD CONSTRAINT 'semester_courses_ibfk_1' FOREIGN KEY ('semester_id')
REFERENCES 'semester' ('semester_id'),

```

```
583 ADD CONSTRAINT 'semester_courses_ibfk_2' FOREIGN KEY ('user_id') REFERENCES '
user_information' ('user_id');
584
585 --
586 -- Constraints for table 'semester_status'
587 --
588 ALTER TABLE 'semester_status'
589 ADD CONSTRAINT 'semester_status_ibfk_1' FOREIGN KEY ('semester_id') REFERENCES
'semester' ('semester_id'),
590 ADD CONSTRAINT 'semester_status_ibfk_2' FOREIGN KEY ('user_id') REFERENCES '
user_information' ('user_id'),
591 ADD CONSTRAINT 'semester_status_ibfk_3' FOREIGN KEY ('request_id') REFERENCES
'semester_status_request' ('request_id');
592 COMMIT;
593
594 /*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
595 /*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
596 /*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
```

5. Implementation

1. Design and create the prerequisite form for admin, displaying courses from levels 100 to 499 with fields: Level, Course, Enable/Disable. - (Completed)

- Displays all prerequisites stored in the database.
- Provides a checkbox that gives the admin the ability to enable/disable individual prerequisites.
- The front-end code is located at:
 - o [Client->src->components->PrerequisiteForm.jsx](#)
- The back-end code is located at:
 - o [Server->routes->prerequisites.js](#)

2. Update database based on the admin's selection of prerequisites. - (Completed)

- Displays all prerequisites stored in the database.
- Provides a checkbox that gives the admin the ability to enable/disable individual prerequisites.
- The front-end code is located at:
 - o [Client->src->components->PrerequisiteForm.jsx](#)
- The back-end code is located at:
 - o [Server->routes->prerequisites.js](#)

3. Implement an *Advising* menu accessible upon student login. - (Completed)

- The front-end code is located at:
 - o [Client->src->components->AdvisingPortal.jsx](#)
- The back-end code is located at:
 - o [Server->routes->user_registration.js](#)
 - o [Server->routes->user.js](#)
 - o [Server->routes->prerequisites.js](#)
 - o [Server->routes->course.js](#)

4. Design and create the “*Course Advising History*” form to display previously submitted records or indicate no records. Records will show in the list. You must show the below columns. – (Completed)

- The front-end code is located at:
 - o [Client->src->components->AdvisingHistory.jsx](#)
- The back-end code is located at:
 - o [Server->routes->user_registration.js](#)
 - o [Server->routes->user.js](#)
 - o [Server->routes->prerequisites.js](#)

- [Server->routes->course.js](#)

5. Develop a form for creating new “Course Advising” form with three sections: History, prerequisites, and course plan. - (Completed)

- The front-end code is located at:
 - [Client->src->components->AdvisingPortal.jsx](#)
- The back-end code is located at:
 - [Server->routes->user_registration.js](#)
 - [Server->routes->user.js](#)
 - [Server->routes->prerequisites.js](#)
 - [Server->routes->course.js](#)

6. Implement the History section with fields: Last Term, Last GPA, Advising Term. - (Completed)

- The front-end code is located at:
 - [Client->src->components->AdvisingHistory.jsx](#)
- The back-end code is located at:
 - [Server->routes->user_registration.js](#)
 - [Server->routes->user.js](#)
 - [Server->routes->prerequisites.js](#)
 - [Server->routes->course.js](#)

7. Enable dynamic addition of rows for prerequisites section with fields: Level, Course Name. (both fields will be dropdown) - (Completed)

- When the user is prompted to provide prerequisites, they are given a dynamic amount of dropdown menus.
- The front-end code is located at:
 - [Client->src->components->AdvisingPortal.jsx](#)
- The back-end code is located at:
 - [Server->routes->user_registration.js](#)
 - [Server->routes->user.js](#)
 - [Server->routes->prerequisites.js](#)
 - [Server->routes->course.js](#)

8. Enable dynamic addition of rows for the course section with fields: Level, Course Name. (both fields will be dropdown) - (Completed)

- When the user is prompted to provide courses for the next term, they are given a dynamic amount of dropdown menus.

- The front-end code is located at:
 - Client->src->components->AdvisingPortal.jsx
- The back-end code is located at:
 - Server->routes->user_registration.js
 - Server->routes->user.js
 - Server->routes->prerequisites.js
 - Server->routes->course.js

9. Implement *rules* for course selection, preventing the addition of courses previously taken in the previous terms. - (Was not able to finish)

- The front-end code is located at:
 - N/A
- The back-end code is located at:
 - N/A

10. Implement functionality to save new entries so that newly created records are displayed in the 'Course Advising History' form with a Pending status.

- The front-end code is located at:
 - Client->src->components->AdvisingPortal.jsx
 - Client->src->components->AdvisingHistory.jsx
- The back-end code is located at:
 - Server->routes->user_registration.js
 - Server->routes->user.js
 - Server->routes->prerequisites.js
 - Server->routes->course.js

11. When a user clicks on any record displayed in *point 4*, they should be redirected to the Course Advising form with the selected record pre-populated. Additionally, if the status of the record is 'approved' or 'rejected,' the record should be frozen and not editable. If the status is 'pending,' the user can make changes and save the record. . (Did not have enough time to start before due date)

- The front-end code is located at:
 - N/A
- The back-end code is located at:
 - N/A

12. Deploy your Frontend, Backend and Database on server and your demo should be demonstrate from live server. (For milestone 2 and milestone 3). - (Completed)

- The database is being hosted on Clever-Cloud, the backend is being hosted on Render.com, and the frontend is being hosted on Firebase.