Appendix
Highlights from Consultation with Client Prior to Programming

Question 1: How often do you update the PR sheet for VHS runners?

Answer 1: I update the PR sheet at least once a week, maybe more if the team went to multiple races in the week. There is always that week in October where we run Saturday, Tuesday, and Friday, so I guess the most would be three times a week.

Question 2: How many runners typically compete in a meet?

Answer 2: Our team is like most other high school teams and so we try to take the entire roster to every meet and they compete in division, you know JV, V, and Frosh/Soph. Sometimes we do have certain ranked meets or sweepstakes where only the Varsity Competes or we can only admit 20 but theses are usually only once or twice a season.

Question 3: Does this cause the process of updating the PR Sheets to take a lot of time?

Answer 3: Well obviously, the more runners that compete the longer it takes to update a PR sheet. It takes longer depending on how many people actually got their PR so ironically, I have much less work to do when the team has a bad race overall.

Question 4: What Program do you normally use to make your PR sheets and does it limit you in any way?

Answer 4: So I normally use Microsoft Word and just maintain a table. I usually receive meet results and compare each runner's result by hand and then update them on my PR sheet if they did run faster. I really don't like how it takes time to format the table every time I want to make changes to it and occasionally Word can be a bit buggy.

Question 5: What would you expect from a program that could automatically maintain the PR's of all Runners?

Answer 5: I would want it first and foremost to take the results from the meet and update PR's as needed. This would save me a ton of time and also, I'm pretty sure a computer program would not make any mistakes that I would from doing it manually

Question 6: Aside from the PR Sheet are there any other features that you would want in the program?

Answer 6: The most important things to runners are normally their PR but sometimes they want to see a progression. Like a runner might want to view all their races for a season with their individual times. Also since it is a computer database, I would hope that I can change a runner's level from varsity to JV or

change their name if I make a mistake and such. Oh, and a search feature would be very nice to, sometimes meet results are sorted differently than my PR sheet and I hate having to hunt for someone's name. The team only gets bigger every year and some of these nuances are starting to become much more important I notice.

Question 7: I plan on coding the program using Java. Does your computer already have Java installed?

Answer 7: Yes, I do have Java 7 on my computer.

Pictures of Sample Data provided by the client to test program:

Orange County Championships Results
10/14/17
12 PRs Set!!!

Freshmen: 8* of 18 Teams: 1:31:43/ 18:20

10 AIDEN LARSEN	Valencia-Pl	16:57.5
37 ALEX OROZCO*	Valencia-Pl	17:56.2
43 ROMAN TIJERINA*	Valencia-Pl	18:04.1
77 LEEANGEL CENDEJAS*	Valencia-Pl	18:39.9
158 KAMRON POPAL	Valencia-Pl	20:05.9
167 JOSE TORRES*	Valencia-Pl	20:18.5
176 ANDREW ECK*	Valencia-Pl	20:37.2
204 DAVID PLUMA	Valencia-Pl	21:12.3
208 ALEX ROCHA*	Valencia-Pl	21:20.4
225 CONNOR PRATT*	Valencia-Pl	21:52.4
232 BRIAN JOSHUA*	Valencia-Pl	22:06.0
262 ABRAR AMBIA*	Valencia-Pl	27:23.8
263 DHRUV PATEL	Valencia-Pl	29:43.4
264 RYAN GREENBAUM	Valencia-Pl	31:32.4
265 JOHN REAM	Valencia-Pl	35:36.2

Sophomores: 4* of 17 Teams: 1:28:23/ 17:40

10 CEDRIC MURPHY	Valencia-Pl	17:11.0
12 MILO PLASCENCIA	Valencia-Pl	17:12.3
18 ETHAN STINNETT	Valencia-Pl	17:24.9
32 NICK SOLORZANO*	Valencia-Pl	17:54.8
56 JAMES CASTANEDA	Valencia-Pl	18:40.6
58 ERNIE MOLINA	Valencia-Pl	18:43.5
64 ANDREW CAMMARATO	Valencia-Pl	18:52.8
66 DYLAN PLYLER	Valencia-Pl	18:53.8
87 EVAN AGILERA	Valencia-Pl	19:23.1
98 CALEB PEREZ	Valencia-Pl	19:45.7
101 CARTER BLACK	Valencia-Pl	19:47.1
102 MATTHEW CAMMARATO	Valencia-Pl	19:47.4
106 ELIJAH CHUNG	Valencia-Pl	19:52.4
136 COLIN IREY	Valencia-Pl	21:30.9
145 BRENNEN CAVISH	Valencia-Pl	22:02.8
151 ETHAN DO	Valencia-Pl	22:26.2
159 ZACK WONG	Valencia-Pl	23:07.8
160 ALEC FLORAY	Valencia-Pl	23:10.1
161 FERNANDO VANEGAS	Valencia-Pl	23:18.5
181 HIMANSHU KAUSHIK	Valencia-Pl	25:37.9

Junior Varsity: 8* of 19 Teams: 1:31:38/ 18:19

25 JOEY PARK	Valencia-Pl	17:31.9
41 ANDREW PORTUGAL	Valencia-Pl	18:00.2
61 EVAN CHASE	Valencia-Pl	18:30.5
66 JORDAN CHEN	Valencia-Pl	18:39.5

126 JUSTIN CHEN	Valencia-Pl	20:15.3
130 JUSTIN AGUILERA	Valencia-Pl	20:33.5
131 ARMAN AMBIA	Valencia-Pl	20:36.6
132 CHRISTIAN PEREZ	Valencia-Pl	20:41.6
149 MIGUEL CABRERA	Valencia-Pl	21:10.9
151 RODBYN GOMEZ	Valencia-Pl	21:11.9
170 JOSEPH LEONARD	Valencia-Pl	22:29.0
183 KYLE MOORE	Valencia-Pl	24:55.3
184 JACOB MCNAIR	Valencia-Pl	25:01.5
185 BEN GALLAGHER	Valencia-Pl	25:12.7

Varsity: 5* of 20 Teams: 1:18:44 Team Time/ 15:45 Avg

9 ETHAN FRISONE	Valencia-Pl	15:07.7
24 TIMO DOHM*	Valencia-Pl	15:36.0
27 NICK KROHN*	Valencia-Pl	15:39.9
38 CAYDEN RUIZ	Valencia-Pl	15:46.1
96 JOSE LUIS PLUMA	Valencia-Pl	16:35.2
121 JARED MORADIAN	Valencia-Pl	17:02.3

BOYS

#	Time	Name		Year
1.	14:38	Josh Linen	(12)	2006
2.	14:58	Juan Robles	(12)	2002
2.	14:58	Jose Gutierrez	(12)	2008
4.	15:02	Josh Linen	(11)	2005
5.	15:03	Juan Robles	(11)	2001
6.	15:08	Benji Preciado	(11)	2010
7.	15:15	Roman Pena	(11)	2004
8.	15:15	Sean Krinik	(11)	2008
9.	15:18	Angel Aguirre	(11)	2006
10.	15:20	Roman Pena	(12)	2005
11.	15:20	Juan Robles	(10)	2000
12.	15:21	Benji Preciado	(12)	2011
13.	15:26	Talal Khan	(11)	2006
14.	15:31	David Pacheco	(11)	2015
15.	15:34	Geovanni Popoca	(12)	2005
16.	15:35	Jesus Salazar	(12)	2003
17.	15:36	Jesus Moreno	(11)	2015
18.	15:38	Jose Gutierrez	(10)	2006
19.	15:39	Cristian Aviles	(11)	2010
20.	15:43	Geovanni Popoca	(11)	2004
21.	15:45	Ethan Frisone	(10)	2015
22.	15:46	Sam Ayala	(12)	2001
23.	15:47	Erick Pacheco	(11)	2006
24.	15:49	Jesus Salazar	(11)	2002
25.	15:49	Luis Avellaneda	(12)	2008

JUNIORS

#	Time	Name	Year
1.	15:02	Josh Linen	2005
2.	15:03	Juan Robles	2001
3.	15:08	Benji Preciado	2010
4.	15:15	Roman Pena	2004
5.	15:15	Sean Krinik	2008
6.	15:18	Angel Aguirre	2006
7.	15:26	Talal Khan	2006
8.	15:31	David Pacheco	2015
9.	15:36	Jesus Moreno	2015
10.	15:39	Cristian Aviles	2010

SOPHOMORES

#	Time	Name	Year
1.	15:20	Juan Robles	2000
2.	15:38	Jose Gutierrez	2006
3.	15:45	Ethan Frisone	2015
4.	15:50	Benji Preciado	2009
5.	15:51	Talal Khan	2005
6.	15:54	Jesus Salazar	2001
7.	15:56	Josh Linen	2004
8.	15:57	Angel Aguirre	2005
9.	16:07	Roman Pena	2003
10.	16:13	Timo Dohm	2015

FRESHMAN

#	Time	Name	Year
1.	16:16	Ethan Frisone	2014
2.	16:22	Jose Gutierrez	2005
3.	16:31	Josh Linen	2003
4.	16:35	Jesus Moreno	2013
5.	16:37	Nathan Learn	2000
6.	16:40	David Pacheco	2013
7.	16:43	Juan Robles	1999
8.	16:45	Jesus Salazar	2000
9.	16:51	Angel Aguirre	2004
10.	16:51	Juan Valadez	2004

Top Team Times

#	Time	Year	Names
1.	76:47	2006	Linen, Aguirre, Khan, Gutierre
2.	77:44	2005	Linen, Pena, Popoca, Khan , A
3.	78:38	2008	Gutierrez, Krinik, Avellanda, C
4.	78:46	2004	Pena, Popoca, Davisson, Line
5.	79:08	2015	Pacheco, Moreno, Frisone, Te
6.	79:22	2010	Preciado, Aviles, Gonzalez, Bi
7.	79:49	2011	Preciado, Aviles, Pope, Ruiz, I
8.	79:54	2001	Robles, Ayala, Salazar, Learn
9.	80:26	2009	Preciado, Cooke, Krinik, Avile
10.	80:28	1986	Lugo,

<u>Feedback from Client after Creating Program:</u>

* These are highlights from the conversation, more extensive quoted answers to these questions can be found in Criterion E Evaluation.

Criterion Number	Criteria
1	Program should be able to read data from a text file in order to create the database. This should create all Runners that are defined in the text file and the Main Menu will have options to create Runners manually as well.
2	Search and Remove single or multiple Runners by Name, Time, and Level from the Main Menu
3	Create Meets through the Meet Class that holds an Array list of type runner. Add runners from database to meet during initialization.
4	Client must be able to manage meets through the Meet Menu
5	Runners should be addable, removable, and have editable time in the Meet Menu
6	Runner private data including name, time, and level should be changeable in the Main Menu or the Meet Menu
7	Create Races in the Race Menu that holds a meet name and a time. All Races in the menu should be sorted by time.
8	Export All Data sorted alphabetically or PR Sheet sorted by PR to new Text Files

Question 1: So, let's address these criteria, When I started the project I reviewed our first conversation and determined that these were the things that the program had to address. How does the program address the loading and exporting of text files?

Answer 1: There was never any trouble working where I left off as long as I exported all the data. I like how the program makes sure I have the correct file name before it starts. The PR sheet I normally export and print out where as the other button lets me keep all the data for the next time I use the project.

Question 2: How do the search and remove functions work?

Answer 2: The search button and remove buttons both work but I rarely need to delete whole groups of runners from the database. I still do like how the search will filer the runners based on if they contain the name, I put in. So sometimes I can find a runner when I may not know exactly how to spell their name.

Question 3: Are all the functions of the meet menu working properly? You should be able to add and remove meets, manage the runners in a meet, and select runners from the database when you select a meet.

Answer 3: I am very pleased with how the meet menu works. I can select the runners that competed when I hit "Add new Meet" and the process is straightforward. Anytime I add times it automatically updates the PR sheet and it also lets me remove runners from the meets. The meets themselves can also be removed. One thing that I might have found useful would have been to export the results of a single meet. Also this isn't too much of a big deal but having dates for the meets wouldn't be a bad idea.

Question 4: Is all the runner private data changeable?

Answer 4: Yes I was really impressed with how the code dealt with any of my mishaps. For instance putting times in that had seconds greater than 60 or trying to put 11th or 12th grade runners in Frosh/Soph.

Question 5: So now that the program is complete, how do you think it could be improved?

Answer 5: Well there are a few minor issues I had with understanding the meet menu. I got a little confused at first but it was nice that your buttons had tool tips so I was able to figure out how to do what I wanted. Maybe try to make the program a little bit more user friendly but again I was able to deal with it without too much trouble. Another thing is that the Project might not be relevant for more than a season or a year worth of time. Since most of the time runners run the same meets every year, there would be no way of distinguishing between them. Also there is no way of graduating a senior class and moving everyone to the next grade at once. If I were to use this program for multiple years I probably wouldn't like having to change all their data one by one. Lastly, the meet data and race data could both be made exportable like the PR sheet. That's also not a big issue but it would be a nice feature to have in case runners wanted to see specific results.