

# SW Engineering CSC

## 648/848 Fall 2022

### The Hiring Guru

#### Team 2

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### Milestone #1

September 21st, 2022

Row	Document Version	Review Date	Description
1	Version 1	9/10/2022	Document was first created, sections were written down and organized for later usage.
2	Version 2	9/13/2022	Began filling out the document. Rough drafting use cases, requirements, data entities, and such.
3	Version 3	9/16/2022	Evenly split up work on what needed to be done. Made a deadline by Monday (9/19) to have use cases, data entities, and requirements
4	Version 4	9/19/2022	Had a lot of information but was very unorganized. Spent time organizing information and also adding use case diagrams. Began work on Competitive Analysis and finishing Requirements
5	Final	9/21/2022	Wrapping up any missing work and helping each

	Version		other in organizing work, formatting, editing any unsatisfactory work, and finalizing last details for this milestone.
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## Executive Summary

Hiring is not a simple process. It's a hectic job that takes days. From finding the right candidate for your organization and job requirements to managing the whole hiring process consumes countless hours and effort. That's because a lot of this processing is manual. Automation is the silver bullet. Many solutions are out there in the market which automate this process to a certain extent. Hiring Guru aims to reduce this effort to the bare minimum. From providing help finding the right candidate to designing and managing the whole hiring pipeline, Hiring Guru will be there to help you.

Hiring Guru will help you find suitable candidates by helping you run advertising campaigns and receive job applications. With every application received, Hiring Guru will provide you with a match score with the help of its intelligent algorithms. It will automatically add the candidates scoring above a certain threshold set by you to the hiring process. It will allow you to design the Hiring Process for different positions and will automatically follow that process for every promising candidate. You won't need to worry about communicating with the candidate, interviewers, etc., since Hiring Guru will do all of these for you. You will be served with hiring insights. Lastly, Hiring Guru would love to have you intervene anytime to see the status or modify any part of the process.

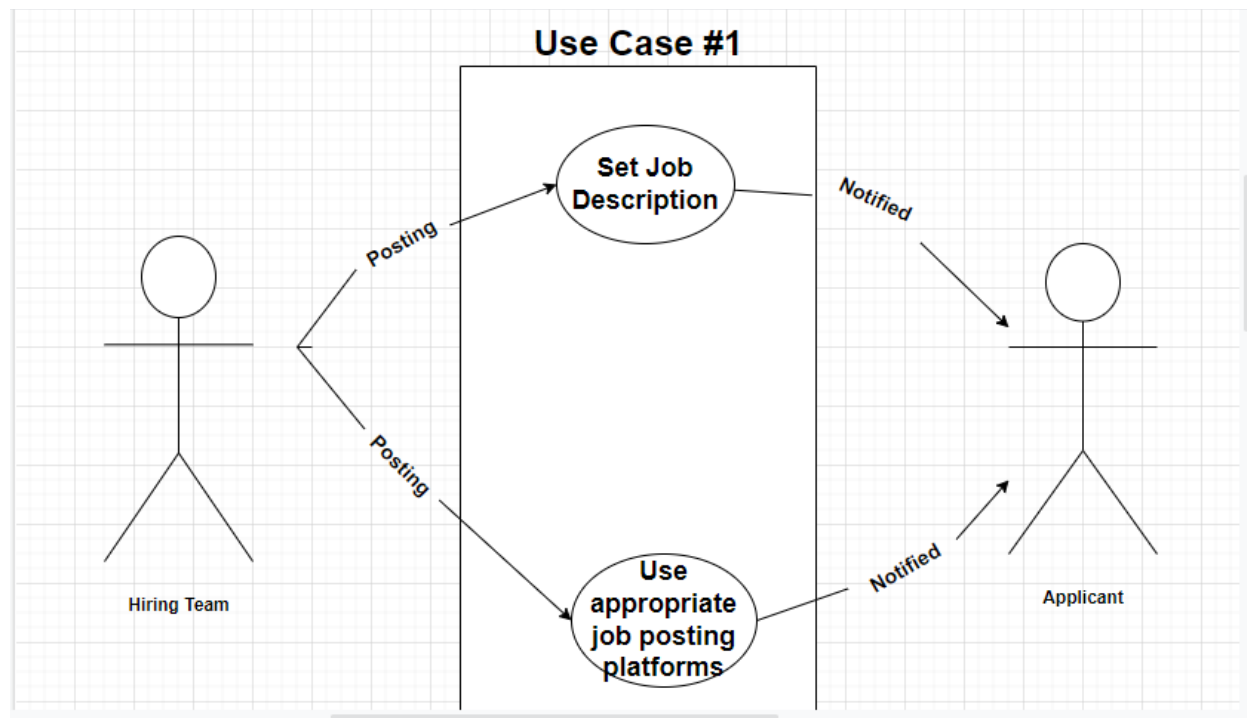
## Main Use Cases

### Use Case - 1

<b>Use Case Title</b>	Job Posting
<b>Actors</b>	Marketing Team
<b>Description</b>	The marketing team is responsible for posting the job on the appropriate websites and ensuring that the job is well advertised for. Essentially, possible candidates should be sure of general information surrounding the job posting, such as when the job closes and the

	general requirements surrounding the job. It's important for the marketing team to advertise the relevant information about the job so that it reaches more suitable candidates.
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Diagram:

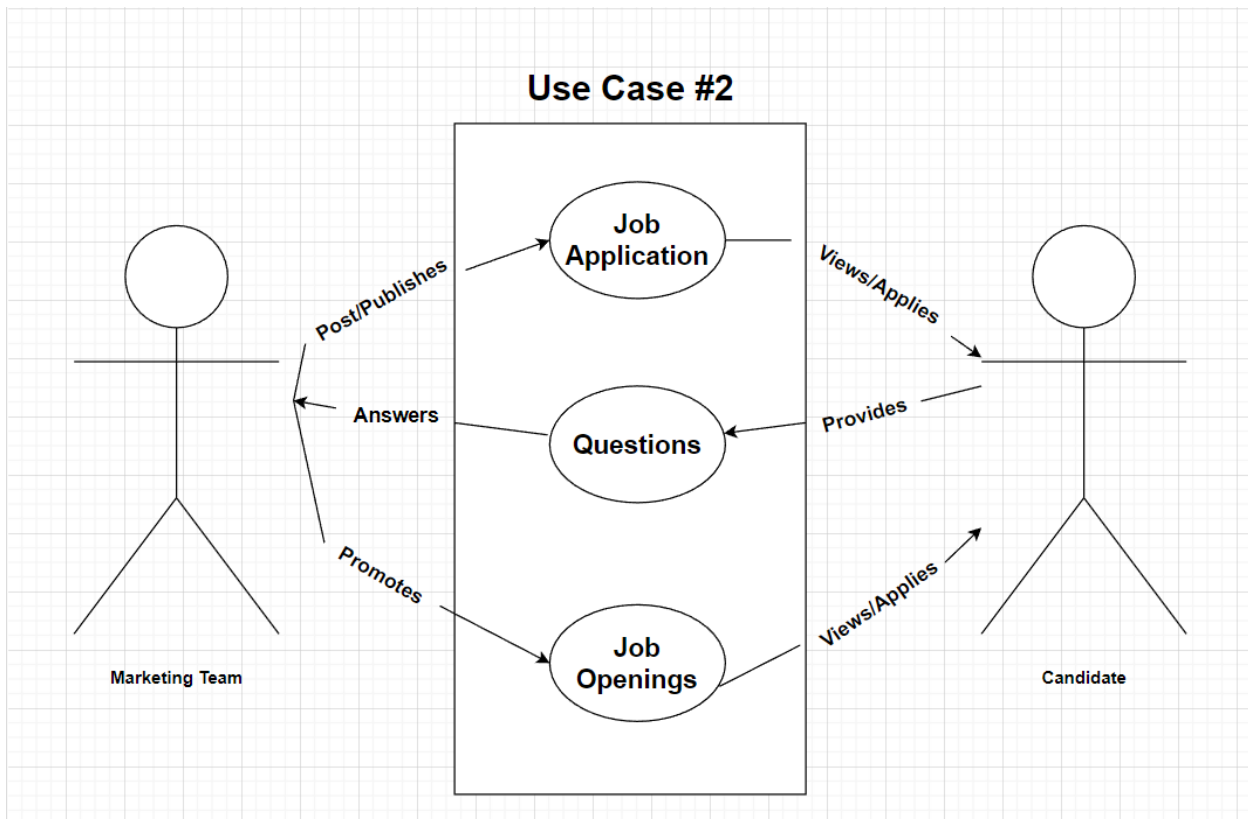


## Use Case - 2

<b>Use Case Title</b>	Job Advertising
<b>Actors</b>	Marketing Team, Executive, Recruiter
<b>Description</b>	Within the Use Case of Job Advertising, the main purpose here is to advertise not only certain jobs but the Hiring Application on other media platforms. The Executive Director can involve both the Marketing Team and other Recruiters to promote open positions as well as promote the application used within the process. The marketing team can promote job openings through many means, such as social media,

	<p>other job hiring sites, and through partnerships with organizations and universities. All these available job postings will then send the user to our Hiring Guru application, where they enter the Recruitment Pipeline Process. The Recruiter is also able to do the same job as the Marketing team, except their job is much more personable. Instead of posting entire jobs available, they will individually message talented individuals who they feel will succeed in a particular position.</p>
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Diagram:

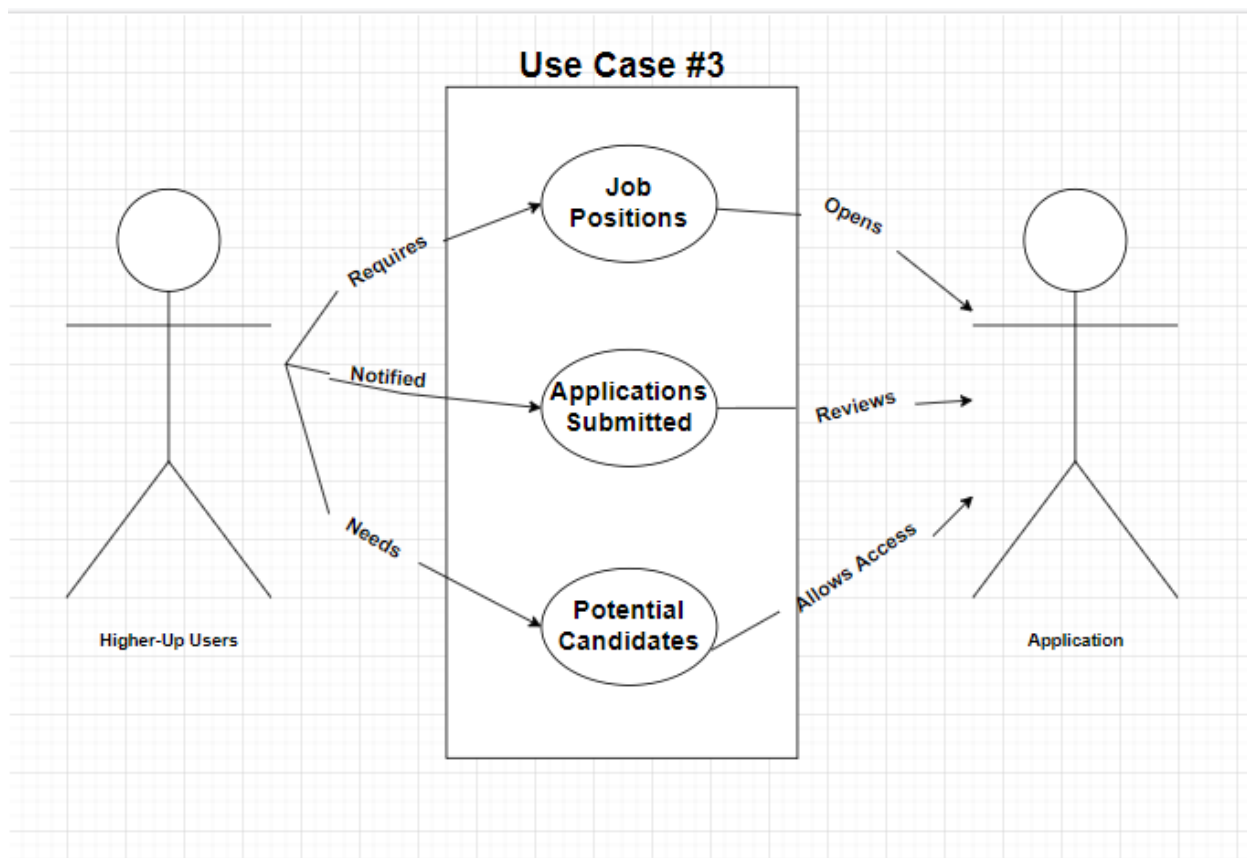


### Use Case - 3

<b>Use Case Title</b>	Open a Position
<b>Actors</b>	HR Manager, Executive

<b>Description</b>	This use case begins when an HR Manager or a company Executive decides that the company needs to hire a new employee for some specific position. They will use the Hiring Guru application to open whatever role they need and include all the necessary and preferred requirements for that position.
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Diagram:

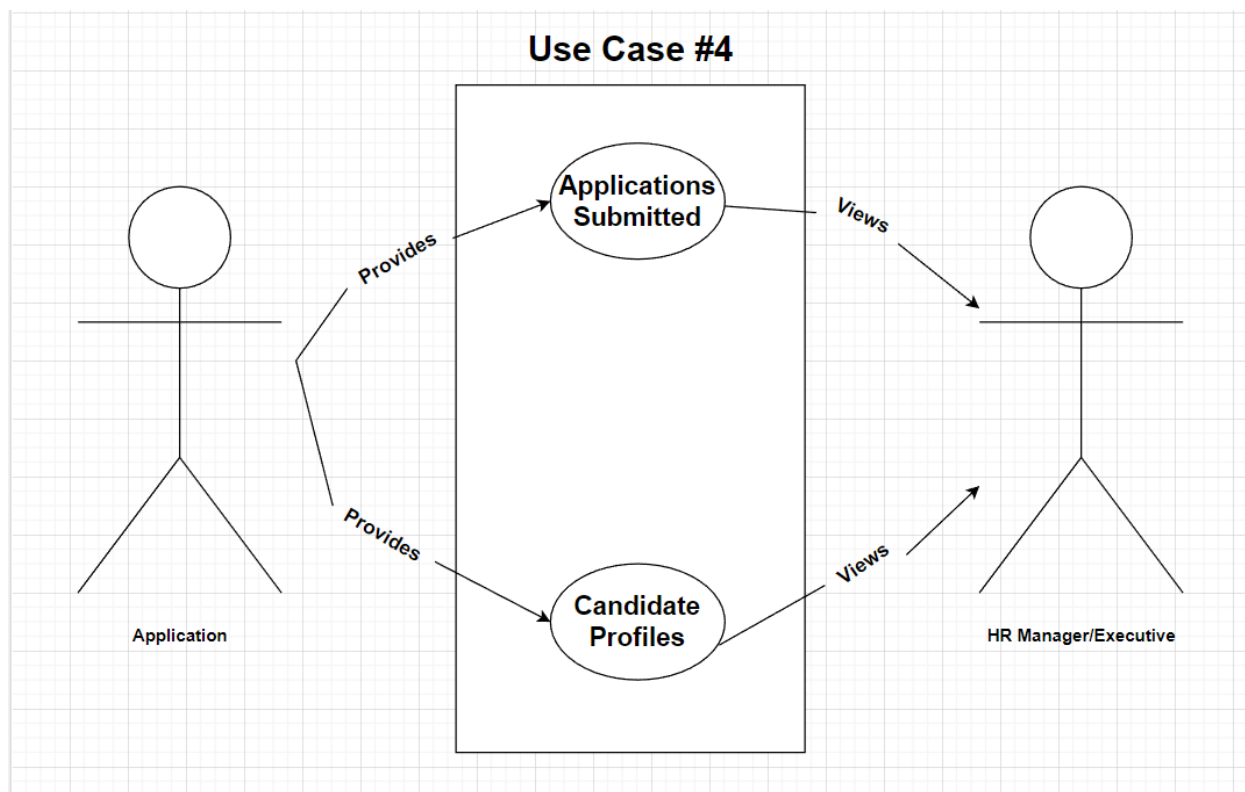


## Use Case - 4

<b>Use Case Title</b>	See applications for a position
<b>Actors</b>	HR Manager, Executive

<b>Description</b>	This use case allows for an HR Manager and Executive to view all submitted Candidate applications for a job position. The Users shall be able to preview the documents in the application and download the document onto their device to open using the program of their choice on their devices. This way, the Users know where to place the Candidate within the Recruitment Pipeline Process.
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Diagram:

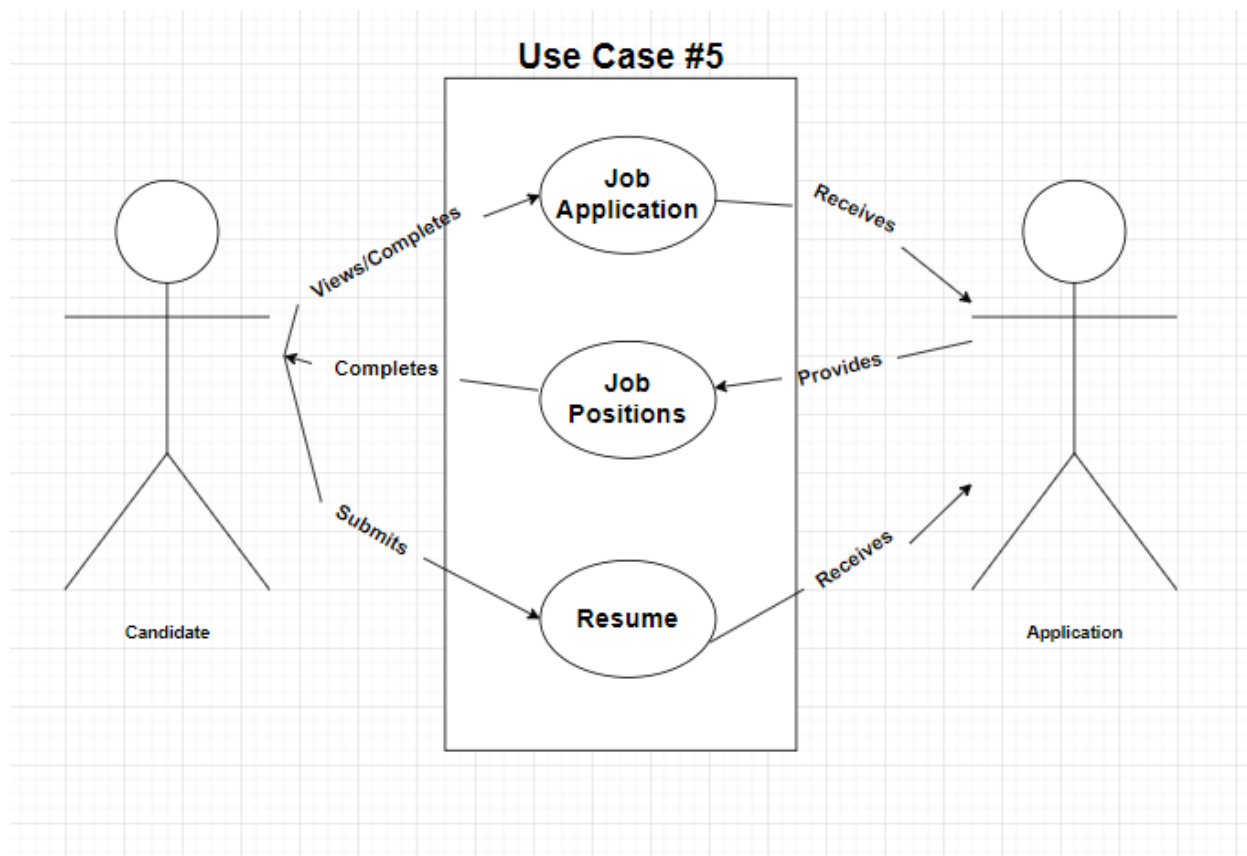


## Use Case - 5

<b>Use Case Title</b>	Seeing and Applying for a Position
<b>Actors</b>	Candidate
<b>Description</b>	This use case details the ability of your average general user, specifically a candidate's ability to

	<p>apply for a position at a specific company. Within this ability, candidates are able to search for a certain career of their preference based on their own skill sets and expertise and see what job positions are available to them that have been opened up by another user. The candidate, and only the candidate, have the ability to apply for whatever position that they desire, to then be put into the Recruitment Pipeline Process.</p>
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Diagram:

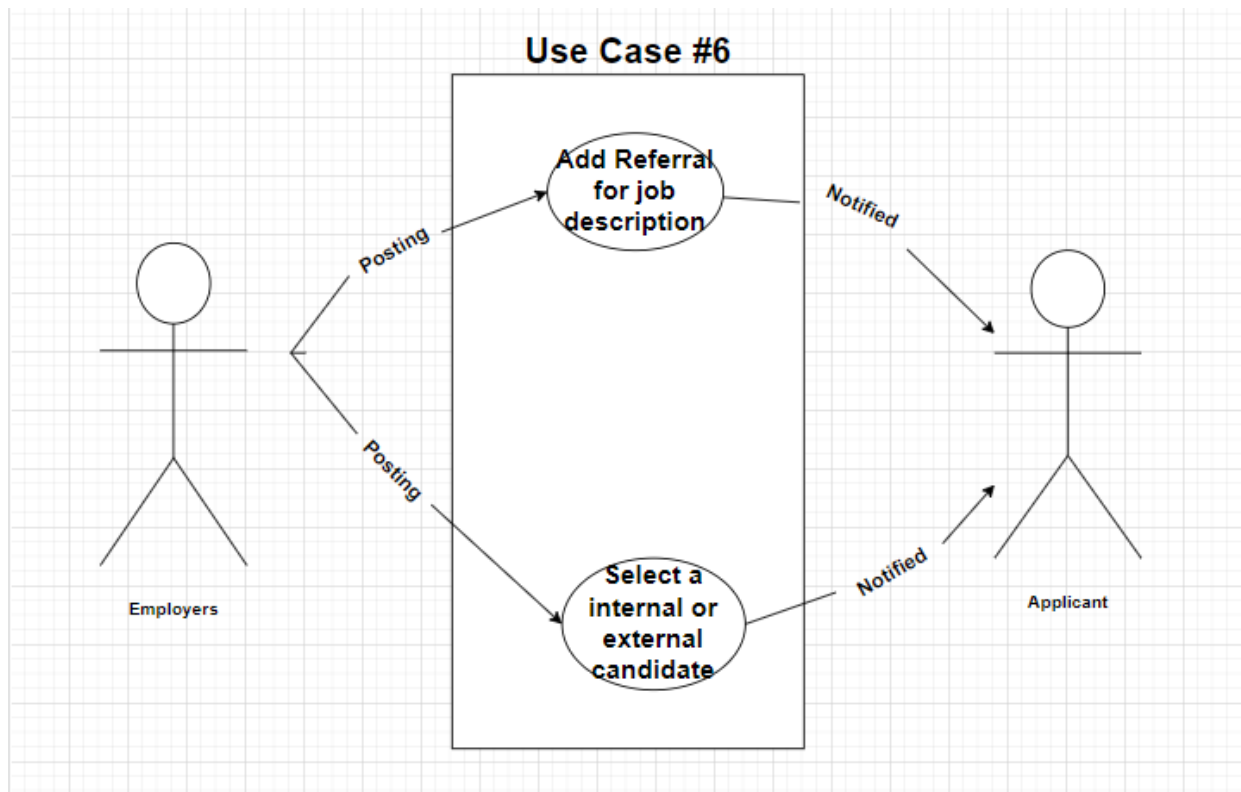


## Use Case - 6

<b>Use Case Title</b>	Add Referral for position
<b>Actors</b>	Employers

<b>Description</b>	This allows for Employers to be able to grant a user a referral. Specifically, with this ability, the employer is able to select an internal or external candidate given that they meet the job requirement posting.
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Diagram:



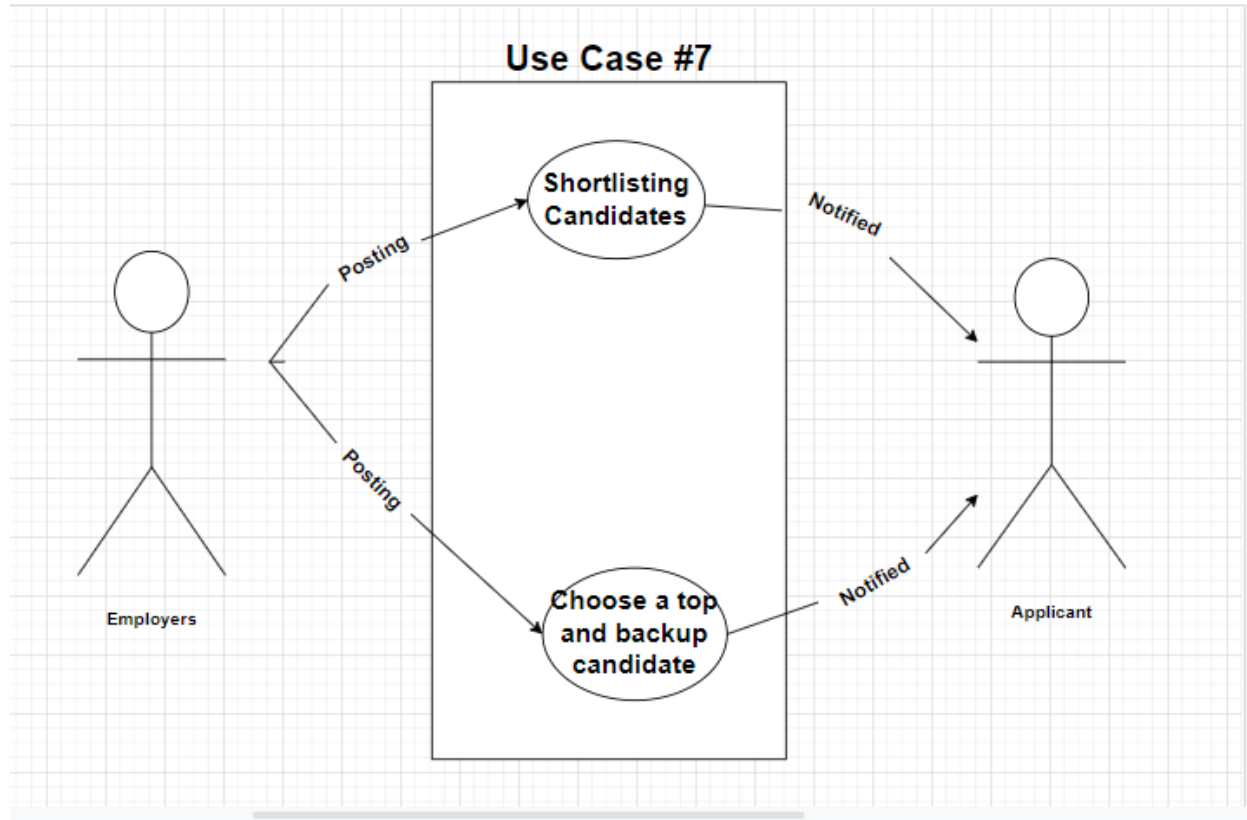
## Use Case - 7

<b>Use Case Title</b>	Shortlisting candidates
<b>Actors</b>	HR Manager
<b>Description</b>	This allows Employers to create a list of their top choices of candidates for a specific job position. This allows for the pool of candidates to be more selective. Furthermore, shortlisting candidates will enable employers to narrow down the long list of all candidates, making it easier for them to choose a top



and a backup candidate.

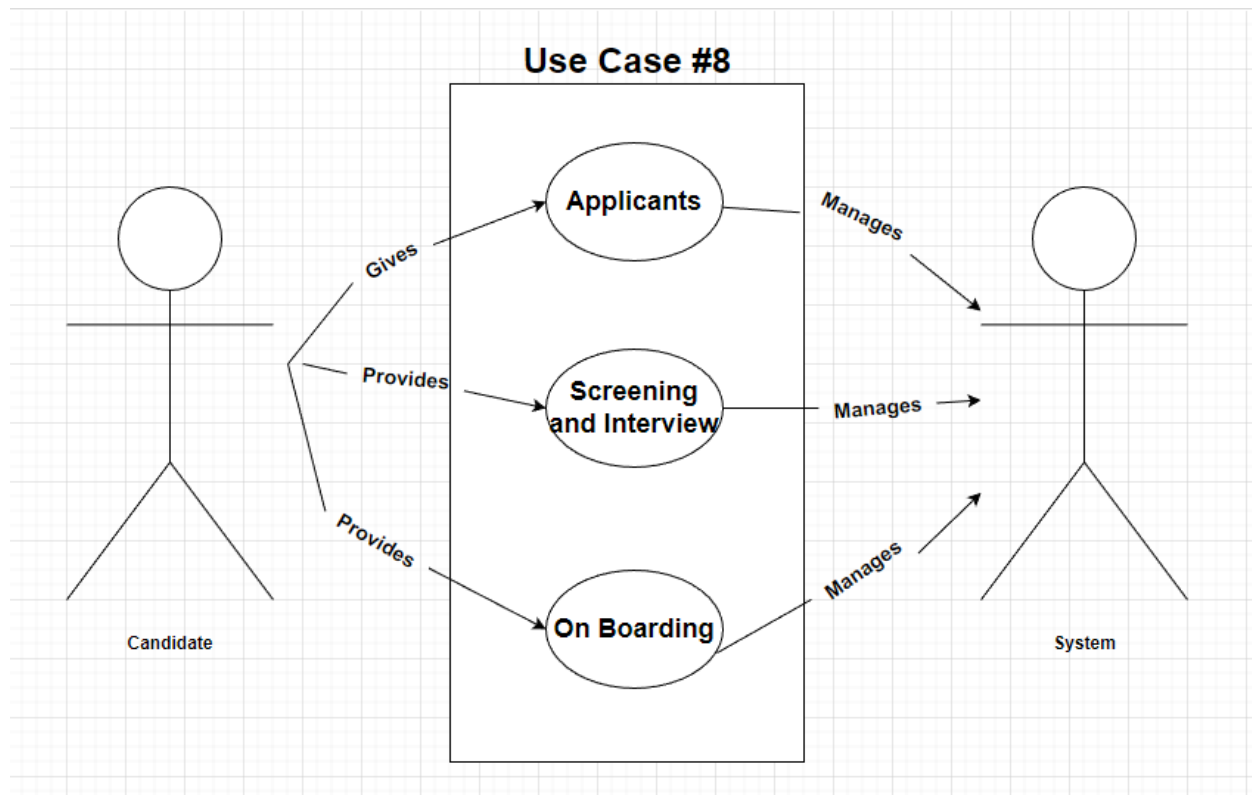
Diagram:



## Use Case - 8

<b>Use Case Title</b>	Automatically execute the pipeline
<b>Actors</b>	System, Candidate
<b>Description</b>	The development pipeline is a series of commands that automatically executes in a row to test, build, or deploy a software product

Diagram:

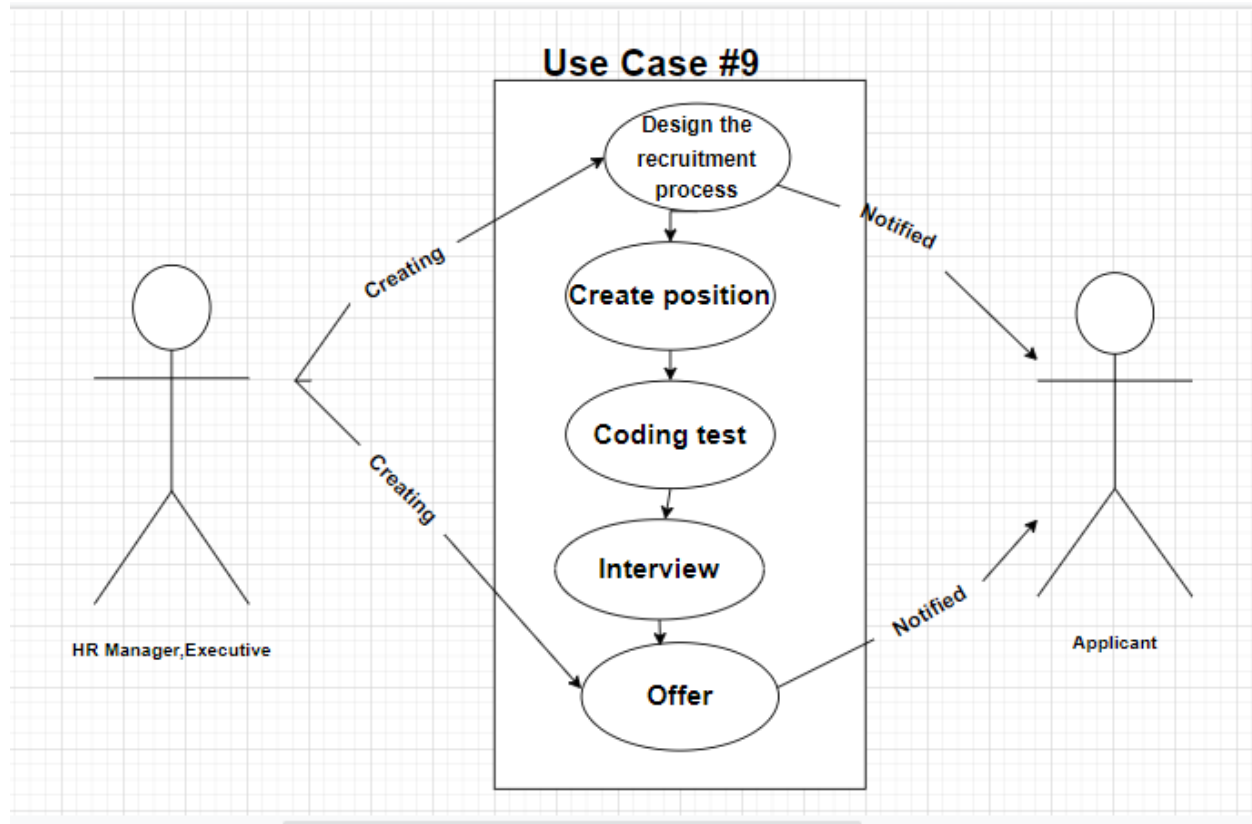


## Use Case - 9

<b>Use Case Title</b>	Design recruitment process
<b>Actors</b>	HR Manager, Executive
<b>Description</b>	With this, the HR Manager and Executive decide on how to create the recruitment process. They start off by creating a job position with a specific job description to match their company's needs. Secondly, they create a coding test that tests the candidates on the specific skills needed for the job. Next, there are a series of interview rounds in which the interviewer tests the Candidate's technical and behavioral skills and comes up with a way of scoring the Candidate's answers. If the Candidate fails any of the interview rounds, then a rejection email must be sent to them. If the candidate passes all of the rounds, then an offer is presented to them, and the candidate must accept or

	decline the offer.
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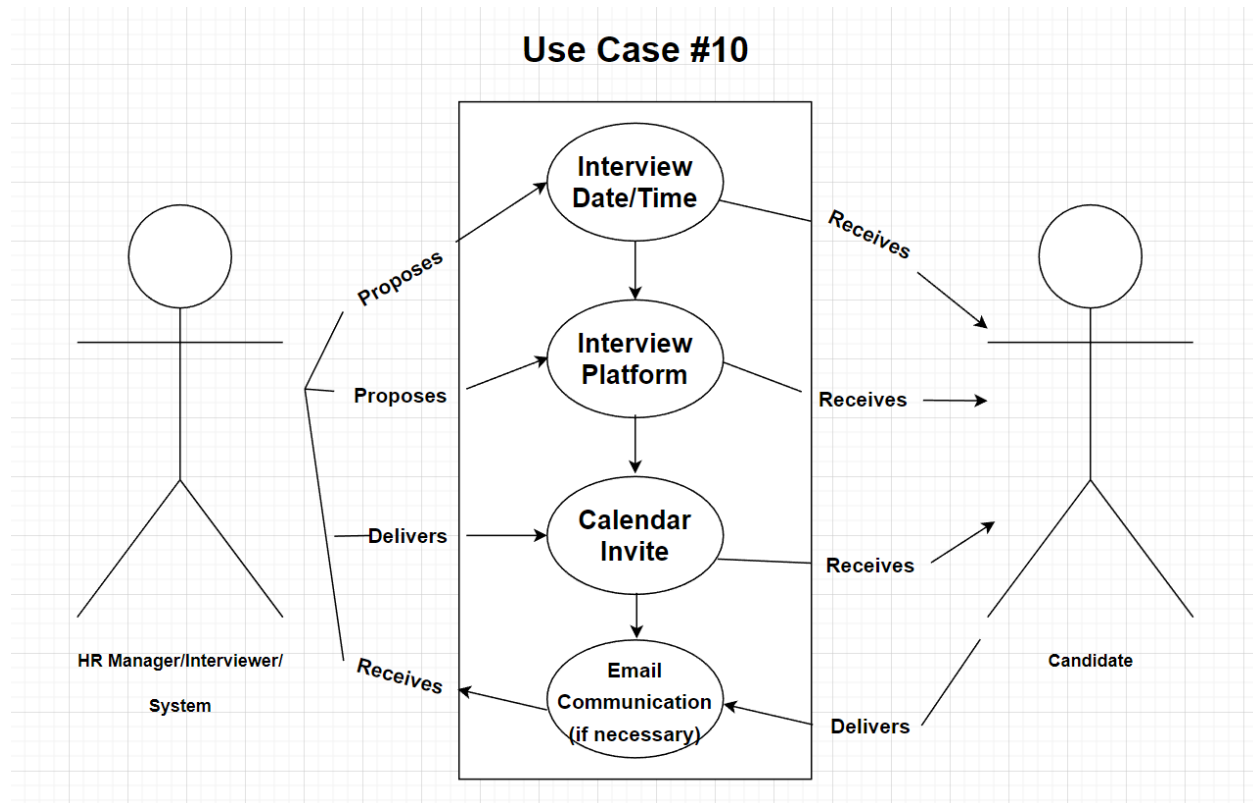
Diagram:



## Use Case - 10

<b>Use Case Title</b>	Schedule an Interview
<b>Actors</b>	HR Manager, Interviewer, Candidate, System
<b>Description</b>	This case gives HR Managers and Interviewers the ability to schedule an interview with a Candidate(s). The Users can choose the date, time, and platform for the interview to be conducted on. The Candidate can accept or reject a scheduled interview and, if rejected, communicate via email to reschedule. The program also notifies all parties involved as a calendar event, in which an advance reminder notification date and time can be customized.

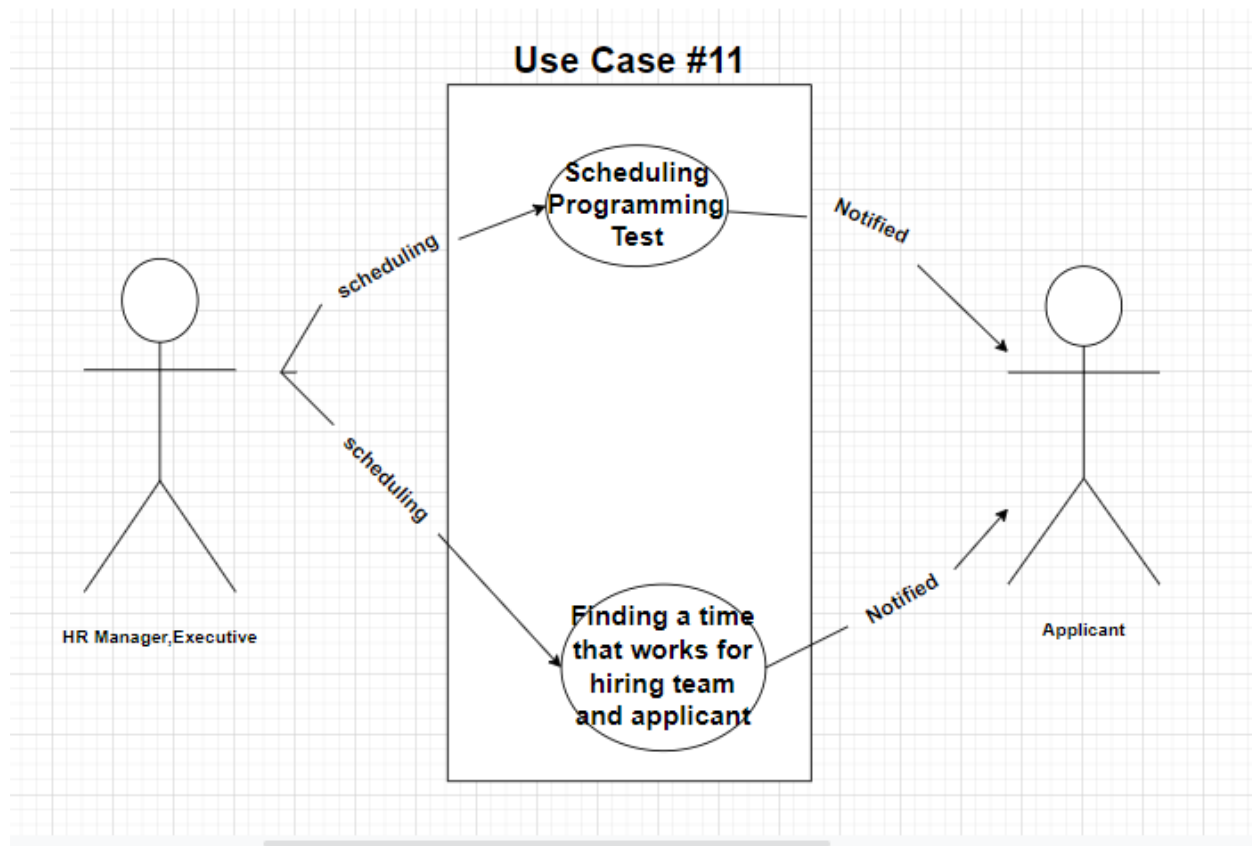
Diagram:



## Use Case - 11

<b>Use Case Title</b>	Schedule a Programming Test
<b>Actors</b>	HR Manager, Executive
<b>Description</b>	This use case allows for either an HR manager or an executive to schedule a programming test for a candidate for a specific position. It involves having an HR Manager or Executive reach out to a candidate and give them a time frame in which they must complete the test, and if the candidate is unable to find a time to complete the test in the given time frame, the HR Manager and Executive schedule a new programming time.

Diagram:

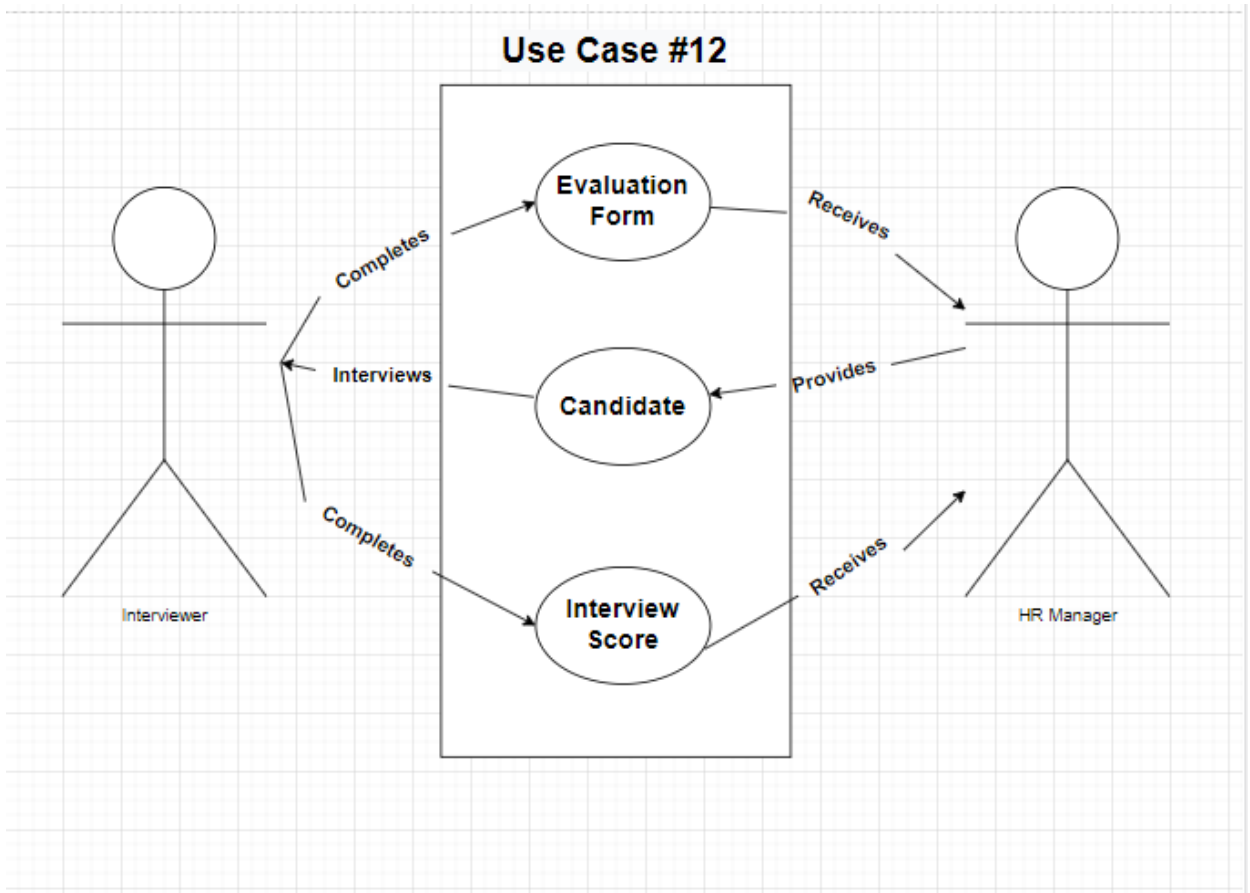


## Use Case - 12

<b>Use Case Title</b>	Interviewer Evaluation
<b>Actors</b>	Interviewer, HR Manager, Executive
<b>Description</b>	<p>This use case is describing the Interview Evaluation that only the Interview is capable of doing. To further describe this use case, a process that occurs within the Recruitment Pipeline is an Interview. An Interview is done between an Interviewer and a Candidate.</p> <p>Throughout the Interview and even after the Interview, the Interviewer will be taking a series of notes based on the actions and responses that the Candidate gives that may benefit them or harm their chance of getting the position. Once all these notes have been written in their entirety, the Interviewer then gives the Candidate an Interviewer Evaluation. This is essentially a score</p>

	for the Candidate that will help others, such as the HR Manager and/or the Executive, determine if this candidate is capable of moving on to the next step within the Recruitment Pipeline Process.
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Diagram:

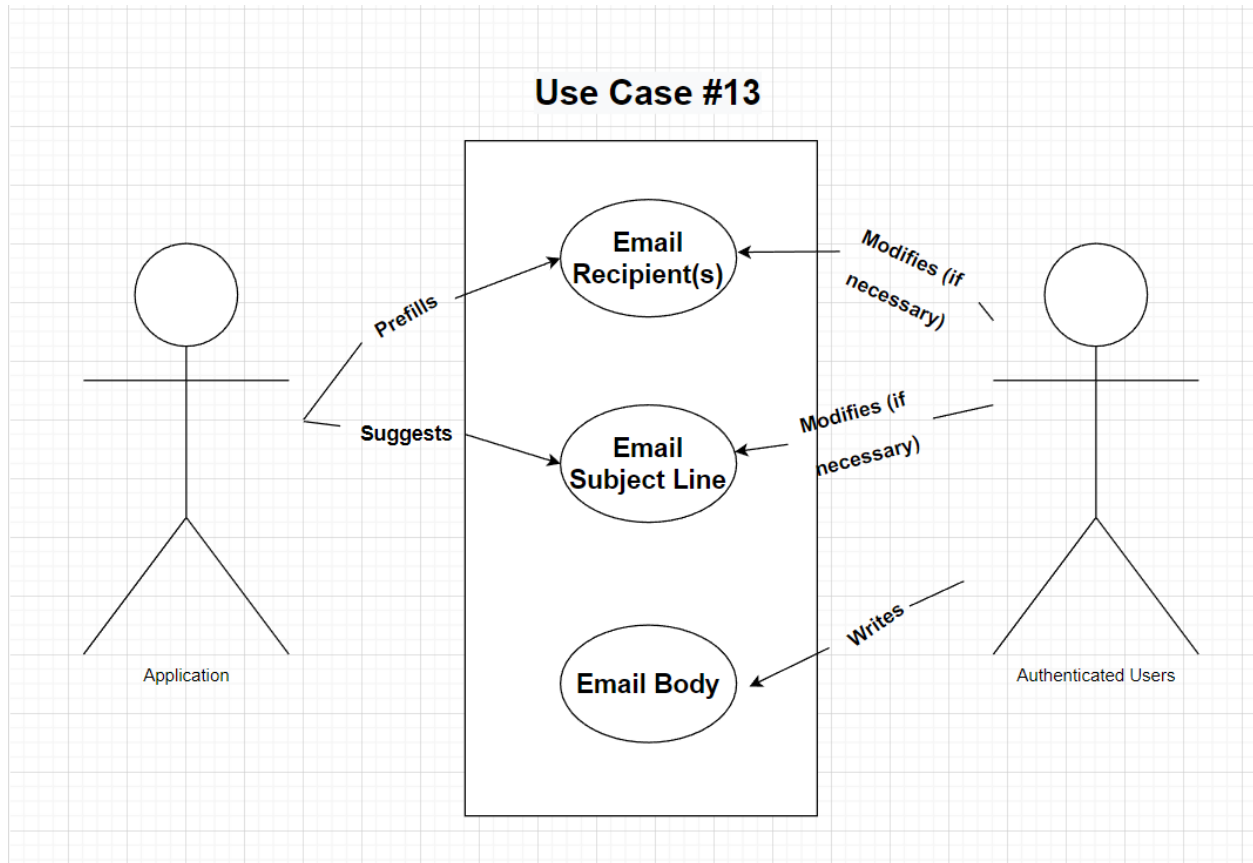


### Use Case - 13

<b>Use Case Title</b>	Send Communication Emails
<b>Actors</b>	Candidate, Interviewer, HR Manager, Executive, Employer
<b>Description</b>	This case gives all Authenticated Users (Candidate, Interviewer, HR Manager, Executive, Employer) the

	ability to send prefilled emails for easy communication with each other. The Users shall be able to click on a button that opens the default email client on their device, with the email address of the recipient(s) prefilled and a suggested subject line.
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Diagram:

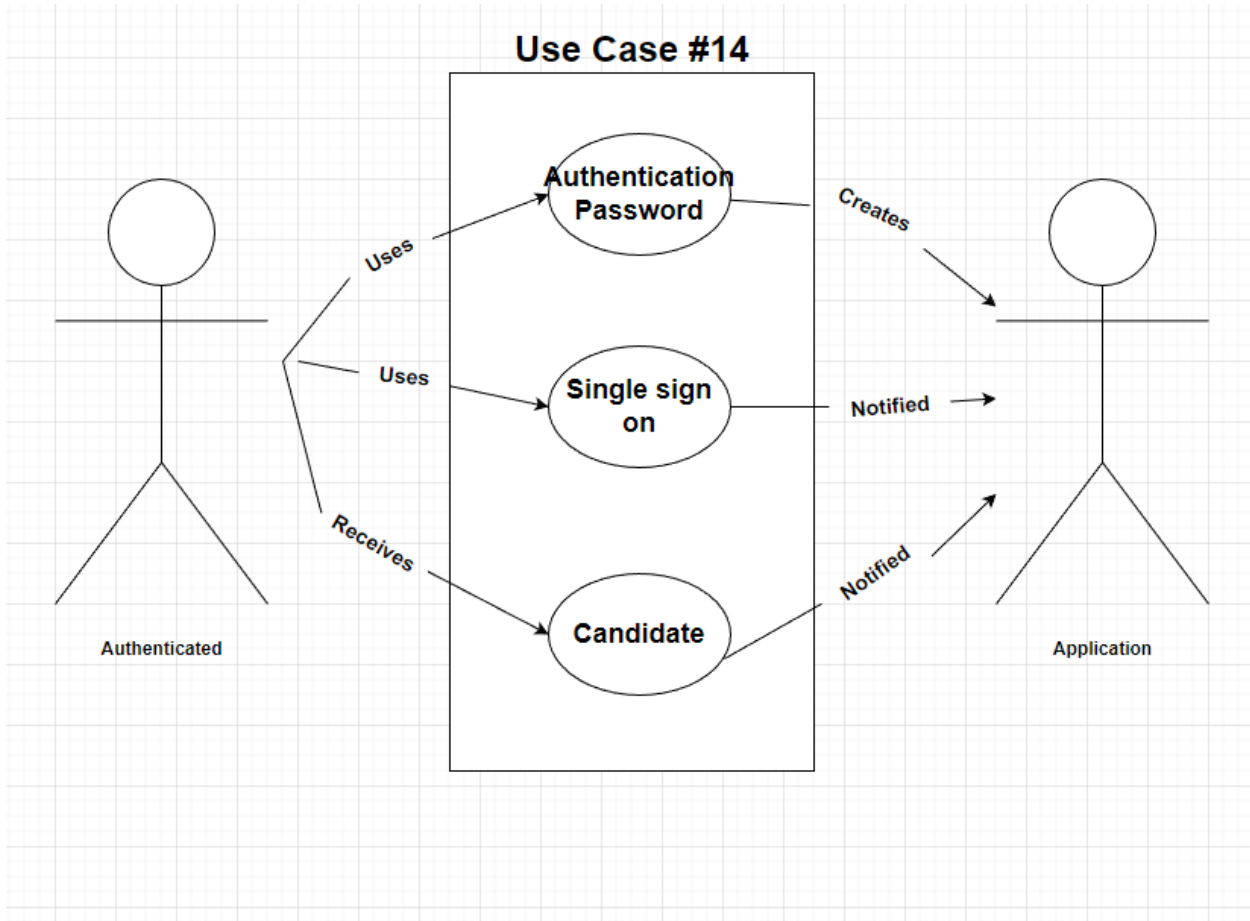


## Use Case - 14

<b>Use Case Title</b>	Authentication
<b>Actors</b>	Authenticated Users (Candidate, Interviewer, HR Manager, Executive, Employer)
<b>Description</b>	This use case allows authenticated users to manage emails. Authenticated users are allowed to log into a

	portal.
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Diagram:



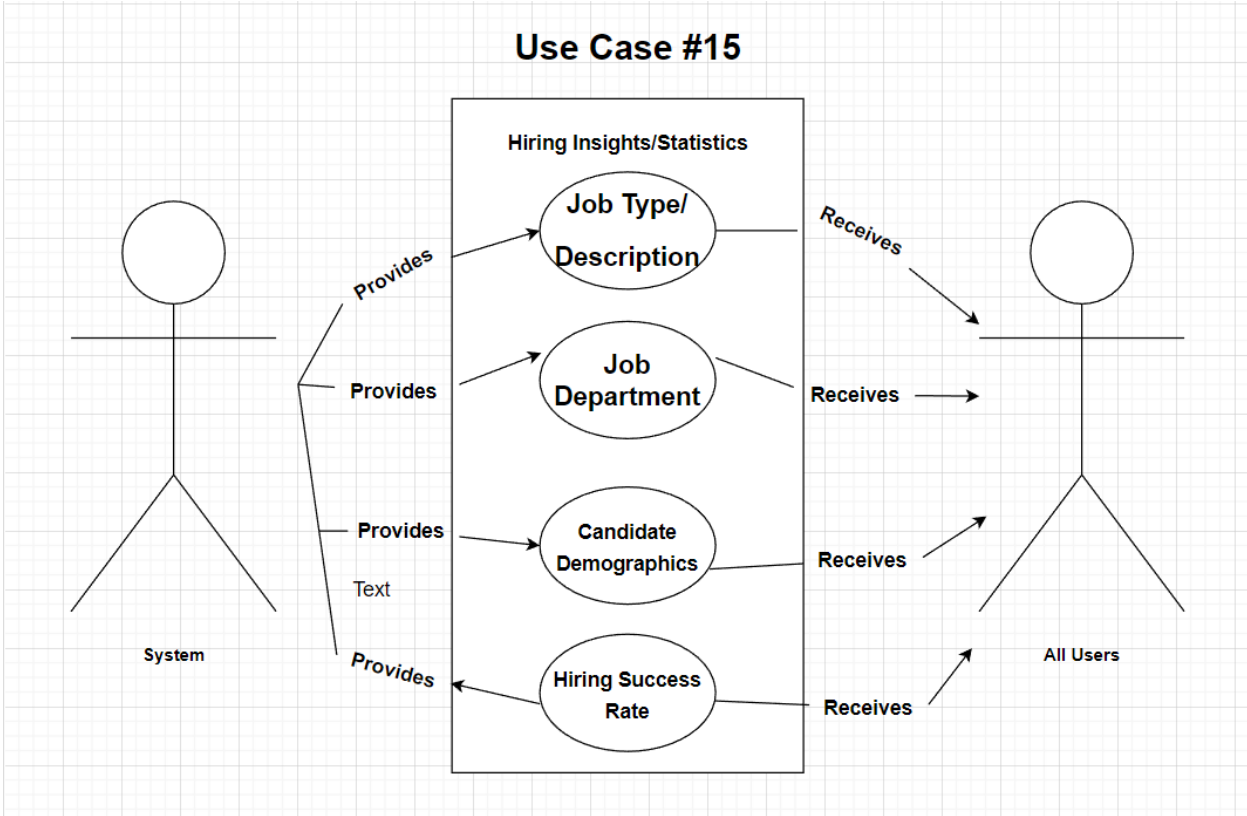
### Use Case - 15

<b>Use Case Title</b>	Hiring Insights
<b>Actors</b>	System, Candidate, Interviewer, HR Manager, Executive, Employer
<b>Description</b>	This use case allows for Candidates, Interviewers, HR Managers, Executives, and Employers to view hiring insights in the System from Candidates who have previously and are currently going through the Recruitment Hiring Pipeline. Users can view statistics such as job type, department, Candidate



	demographics, location, and hiring success rate for a given company/position. Employees at a company and hiring staff can use these metrics to see how well they are doing, while Candidates can gauge their chances of getting the position or not.
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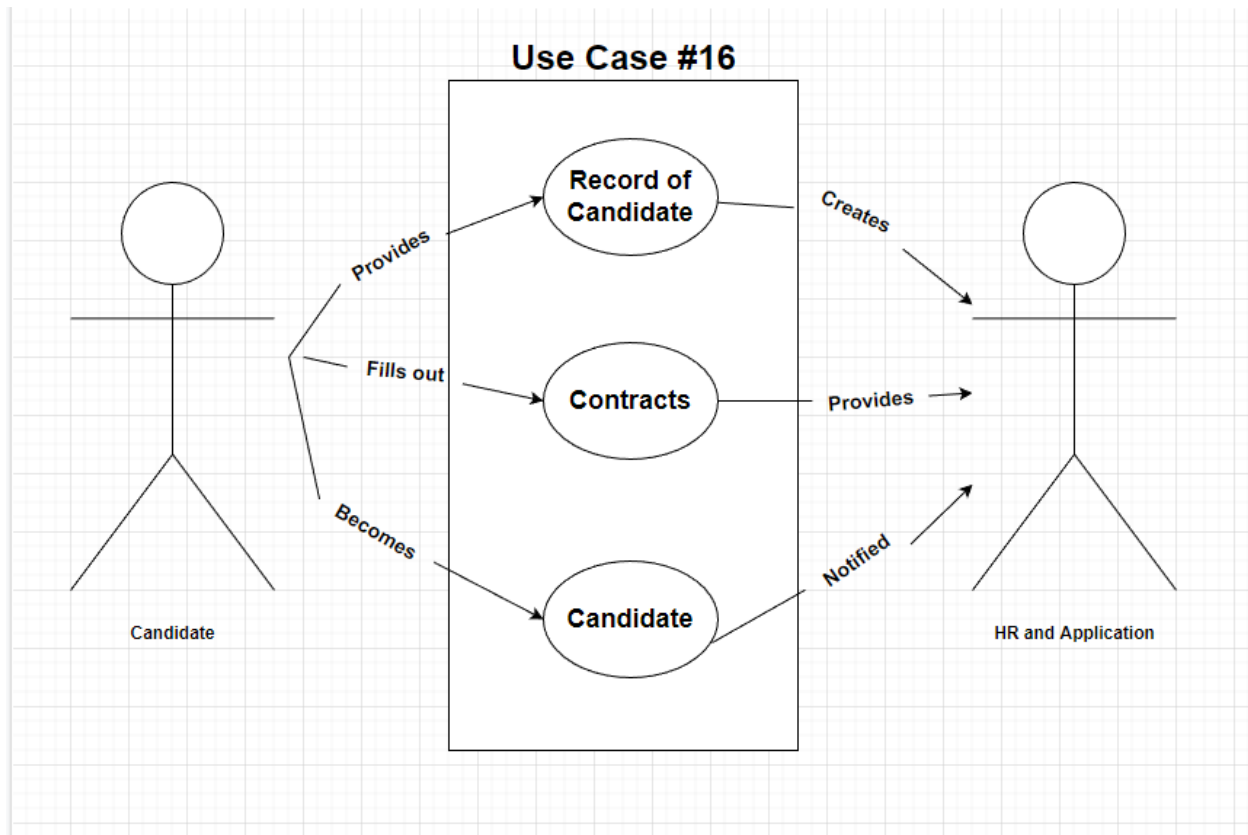
Diagram:



### Use Case - 16 (Eric)

<b>Use Case Title</b>	Candidate Onboarding
<b>Actors</b>	Candidate, HR Manager, Application
<b>Description</b>	Creates a platform for Candidates to smoothly transition from candidates to employees, ensuring that they get the correct information and training to adequately assume their role in the company.

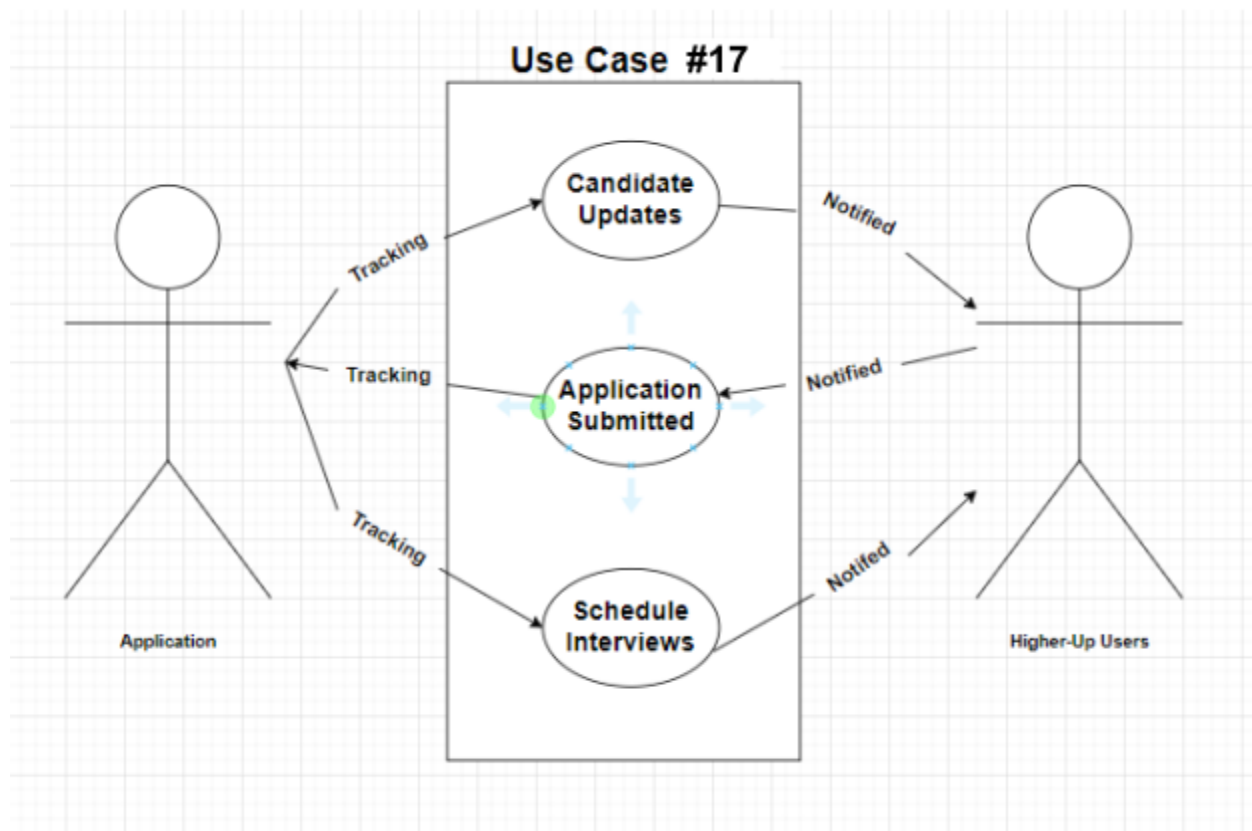
Diagram:



### Use Case - 17 (Mamadou)

<b>Use Case Title</b>	Task Tracking
<b>Actors</b>	HR Manager, Executive, Tech Recruiter, Interviewer,
<b>Description</b>	The main purpose of this use case is for all employees who have special access to the Hiring Guru and are able to see tasks needed to be done for every candidate that is going through the Recruitment Process. These individuals have perks the candidates do not have which allows for them to view all the needed tasks to be completed.

Diagram:



# List of Main Data items and entities

## HR Manager

An HR Manager does the following:

- An HR manager is the main actor and the most frequent user of this application, responsible for managing the complete hiring process.

## Candidate

A Candidate does the following:

- The Candidate is a prominent user within the application, responsible for going through the entire Recruitment Pipeline Process from start to finish

## Executive

An Executive does the following:

- The Executive entity is an entity that has the same influence as the HR Manager but is one above the HR Manager.

## Tech Recruiter/Marketing

A Tech Recruiter does the following:

- A Tech Recruiter, or the Marketing Team, is the main user that starts the entire Recruitment Pipeline Process within the Hiring Guru, responsible for hiring the Candidate that will undergo the process.

## Interviewer

An Interviewer does the following:

- An Interviewer is a user who is an employee within the desired company by the general user and interviews them to see if they qualify for the specific role.

## General User

A General User can do the following:

- A General User is a user who is only exploring the application and has the most basic features accessible to them, most often an unauthenticated user.

# Initial List of Functional Requirements

1. Authorized Users shall be able to create a new position (e.g., QA Engineer, Software Engineer, etc.)
2. General User shall be able to see the list of all positions
3. Authorized User shall be able to update a position
4. General User shall be able to see the detail of one position
5. Authorized User shall be able to remove a position from the system
6. General User shall be able to open a new position for a particular position
7. General User shall be able to see all the open positions
8. Authorized User shall be able to remove a position from the listing
9. General User shall be able to see the detail of a specific position
10. General User shall be able to apply for a specific position (to become a Candidate)
11. General User shall be able to see all the applications for a specific position
12. Authorized User shall be able to add referral for a specific position
13. Authorized User shall be able to see all the referrals for a specific position
14. Authorized User shall be able to design the hiring process for a position
15. Authenticated User shall be able to update the hiring process for a position
16. General User shall be able to see the hiring process for a position
17. Authorized User shall be able to add a Candidate to the hiring process for a specific position
18. Authorized User shall be able to see a list of all the Candidates who are in the hiring process for a specific position
19. Authorized User shall be able to initiate the first step of the hiring process when a Candidate is added to the hiring process
20. The Application shall be able to move the Candidate to the next step when a step is successful
21. The application shall be able to notify the Candidate about the success/failure in a step
22. The application shall be able to automatically remove the Candidate from the hiring process if a step is failed
23. Authorized User shall be able to manually remove a Candidate from the hiring process
24. Authorized User shall be able to add an Employee
25. General User can shall be able to a list of all Employees
26. General User can shall be able to the detail of an Employee
27. Authorized User shall be able to update the detail of an Employee

28. Authorized User shall be able to remove an Employee from the company
29. Authorized User shall be able to mark an Employee as an Interviewer
30. Authorized User shall be able to see a list of all Interviewers
31. Authorized User shall be able to remove an Employee from the Interviewer status
32. Authorized User shall be able to allow an interviewer to set their availability time
33. Authorized User shall be able to allow a Candidate to provide their availability for an interview
34. Authorized User shall be able to schedule an interview of the Candidate
35. Authorized User shall be able to send a calendar invite to the Interviewers and the Candidate
36. Authorized User shall be able to see the detail of an interview of the candidate
37. Authorized User shall be able to update the details of an interview - date, interviewers etc.
38. Authorized User shall be able to add the feedback and decision of an interview
39. Authorized User shall be able to schedule a programming test of the candidate
40. Authorized User shall be able to see the results of the programming test of a Candidate
41. Authorized User shall be able to update the time and date of a programming test
42. Authorized User shall be able to add the feedback/decision of a programming test
43. General User shall be able to log in using username and password
44. General User shall be able to log in using company SSO (i.e., Outlook)
45. General User shall be able to log out
46. Authorized User should be able to create a job post on LinkedIn
47. Authorized User should be able to create a job post on Stackoverflow
48. Authorized User should be able to create a job post on Handshake
49. General User shall be able to see created job posts
50. Authorized User shall be able to update job posts
51. General User shall be able to see statistics of a job post
52. Authorized User should be able to create a new advertising campaign on YouTube
53. Authorized User should be able to create a new advertising campaign on Facebook
54. Authorized User should be able to create a new advertising campaign on StackOverflow
55. Authorized User should be able to create a new advertising campaign on LinkedIn
56. Authorized User should be able to remove an advertising campaign
57. Authorized User should be able to pause an advertising campaign
58. Authorized User should be able to see statistics of an advertising campaign

59. Authorized User should be able to calculate the budget and allocate money for specific advertising campaigns
60. Authorized User should be able to scrape profiles from LinkedIn given a set of keywords
61. Authorized User should be able to analyze LinkedIn profiles using Artificial Intelligence
62. Authorized User shall be able to get profiles matching given keywords
63. Authorized User shall be able to save the list of matching profiles
64. Authorized User shall be able to send a message to the matching profiles to see if they are interested
65. Authorized User shall be able to add profiles of interest to the recruitment pipeline
66. Authorized User should be able to calculate budget to accommodate the candidate's desired pay
67. Authorized User should be able to calculate budget to see how many open positions are possible to create
68. Authorized User shall be able to ensure the Interviewer understands what skills and experience the job require
69. Authorized User shall be able to ensure the Interviewer has the proper skills to take the interview
70. Authorized User should be able to calculate the budget to allocate for training interviewers on how to conduct an interview
71. Authorized User shall be able to create relevant application questions
72. Authorized User shall be able to send a background check must to a candidate, which must be passed before being able to accept a job offer
73. Authorized User shall be able to review each applicant's resume and experience prior to interviewing
74. Authorized User shall be able to determine how to score candidate's responses
75. Authorized User shall be able to talk about the day-to-day duties and inform the candidate about the work culture
76. Authorized User shall be able to answer Candidate's questions appropriately
77. Authorized User shall be able to administer situational and personality tests to narrow the list of Candidates
78. Authorized User shall be able to ask the candidate about their salary expectations
79. Authorized User shall be able to identify the hiring need
80. Authorized User shall be able to identify if the hire is an external or internal applicant

81. Authorized User shall be able to determine if an internal hire- minimal advertising is needed
82. Authorized User shall be able to determine if an external hire- go through usual advertising channels
83. Authorized User shall be able to devise a recruitment plan
84. Authorized User shall be able to write a job description
85. Authorized User shall be able to perform a reference check
86. Authorized User shall be able to create a checklist of all of the paperwork related to employment the Candidate needs to fill out after accepting an offer
87. The application should be able to give Candidate ample time to complete the employment paperwork
88. Authorized User shall be able to ensure that the employment paperwork is correct and complete
89. Authorized User shall be able to select a top and a backup candidate
90. Authorized User shall be able to, if no candidates meet the hiring criteria, decide whether to restart the hiring process
91. Authorized User shall be able to, if they wish to restart the hiring process, decide how to adjust the hiring criteria to yield more candidates
92. Authorized User shall be able to, if they wish to restart the hiring process, decide how to advertise the position to more favorable candidates
93. Authorized User shall be able to, if the candidate is ready to accept the job offer, decide which elements of the offer letter are negotiable
94. Authorized User shall be able to ensure that the application should be easy to complete
95. Authorized User shall be able to ensure that Artificial Intelligence is able to parse through the candidate's resume to fill out fields in the application
96. Authorized User shall be able to schedule a phone screen
97. The application should be able to give the Candidate ample time to respond to the phone screen interview
98. Authorized User shall be able to schedule a new time for the phone screen interview if the Candidate is unable to meet at the provided times
99. Authorized User shall be able to, if the phone screen interview passes, the hiring team needs to schedule the in-person interview
100. Authorized User shall be able to schedule a new time for the interview if the Candidate is unable to meet at the requested times
101. Authorized User shall be able to schedule a skills test



102. Authorized User shall be able to ensure appropriate questions are on the skills test related to the job requirement
103. Authorized User shall be able to schedule a new time for the skills test if Candidate is unable to complete it within the provided time frame
104. Authorized User shall be able to give a certain time frame for the candidate to accept the offer letter
105. Authorized User shall be able to create convenient methods for applicants to be able to withdraw from the application process at any time
106. Authorized User shall be able to provide specific feedback as to why they didn't pass that round
107. Authorized User shall be able to provide detailed feedback on what they liked about the candidate's performance but also reservations they might have
108. Authorized User shall be able to allow for convenient and quick channels of communication for the candidate to ask questions throughout the interview process
109. General User shall be able to begin the onboarding process
110. Authorized User shall be able to prepare new Candidate for training
111. Authorized User shall be able to create a new onboarding program
112. Authorized User shall be able to create activities for the Candidate to do
113. Authorized User shall be able to create a database for tracking candidate's progress
114. Authorized User shall be able to prepare orientation with other Candidates
115. Authorized User shall be able to display information needed by the candidate
116. Authorized User shall be able to Send offer letter to candidate
117. Authorized User shall be able to request Employment background screening
118. Authorized User shall be able to Email reminders of the next steps in onboarding
119. Manage space for Candidates
120. Manage any health benefits that should be given to the employee
121. Authorized User shall be able to Organize meetings between the employer and the candidates
122. Authorized User shall be able to Take in any comments or complaints that the candidate might have
123. Authorized User shall be able to do a performance review scheduling
124. The application shall have an administration tools for the interviewer
125. Introduce the candidate to technologies they will need to learn how to use
126. The General User shall be able to create employee email

127. The application should be able to organize where and how they will be working
128. The application should be able to organize the workspace
129. The application should be able to create a schedule for the Candidate
130. The application should be able to allocate mentor for Candidate
131. The application should be able to have a paid or unpaid boarding process
132. The application should be able to grant access to technical tools needed by the candidate
133. The application should be able to provide job-specific programs for each candidate
134. The application should be able to organize team dynamics
135. The application should be able to have memory allocation for Candidate information
136. Authorized User shall be able to remove candidate function
137. Authorized User shall be able to pause candidate function
138. Authorized User shall be able to find candidate function
139. Authorized User shall be able to assign role to candidate
140. Authorized User shall be able to set goals for the candidate to complete
141. Authorized User shall be able to create tasks for candidate
142. Screening function for making sure the candidate is cleared
143. The application should be able to have a candidate portal
144. The application should be able to have a workload manager
145. The application should be able to have a deadline setter
146. The application should be able to have a way to communicate with other data items
147. The application should be able to host meetings
148. The application should be able to have a create presentations
149. The application should be able to have a digital document process
150. The application should be able to have a total cost calculator
151. The application should be able to have a find jobs for the candidate within company
152. The application should be able to have a survey candidate
153. The application should be able to have a calculate trust level
154. The application should be able to have a give raise
155. The application should be able to have a decrease wage
156. The application should be able to have a calculate candidate hours

# List of Non-Functional Requirements

1. The application shall have efficient response time
2. The application shall have an easy to use platform
3. The application shall have sufficient space for all data
4. The application should have an option for extra space
5. General User shall be able to create an account
6. General User should be able to mark required regions in account registration
7. General User shall be able to add required information to account
8. General User shall be able to add a resume to account
9. General User shall be able to have other accounts linked to this account
10. General User should be able to save jobs to a folder
11. General User shall be able to search for jobs
12. General User should be able to sort jobs by date applied
13. General User shall be able to view necessary information underneath job
14. General User shall be able to add necessary information underneath job
15. The application should have an easy to follow design
16. The application should have a unique and Colorful Design
17. The application should have no unnecessary information on the page
18. The application shall have adequate Connection to Wi-Fi
19. The application shall have see Wi-Fi connection status
20. General User shall be able to see visibility status with other companies
21. General User shall be able to customize profile picture for account
22. The application should have a career history to be added to account
23. General User should be able to an academic history to be added to account
24. General User should be able to any achievements to be added to account
25. General User shall be able to add custom bio to account
26. The application shall have strong security
27. General User should be able to sign in using 2 Factor Authentication
28. General User should be able to answer security questions in case of account  
lockout
29. General User shall be able to hide password when typing
30. General User shall be able to view password when typing
31. General User shall be able to update password
32. General User shall be able to choose username that's not taken yet
33. General User shall be able to choose email that's not taken yet

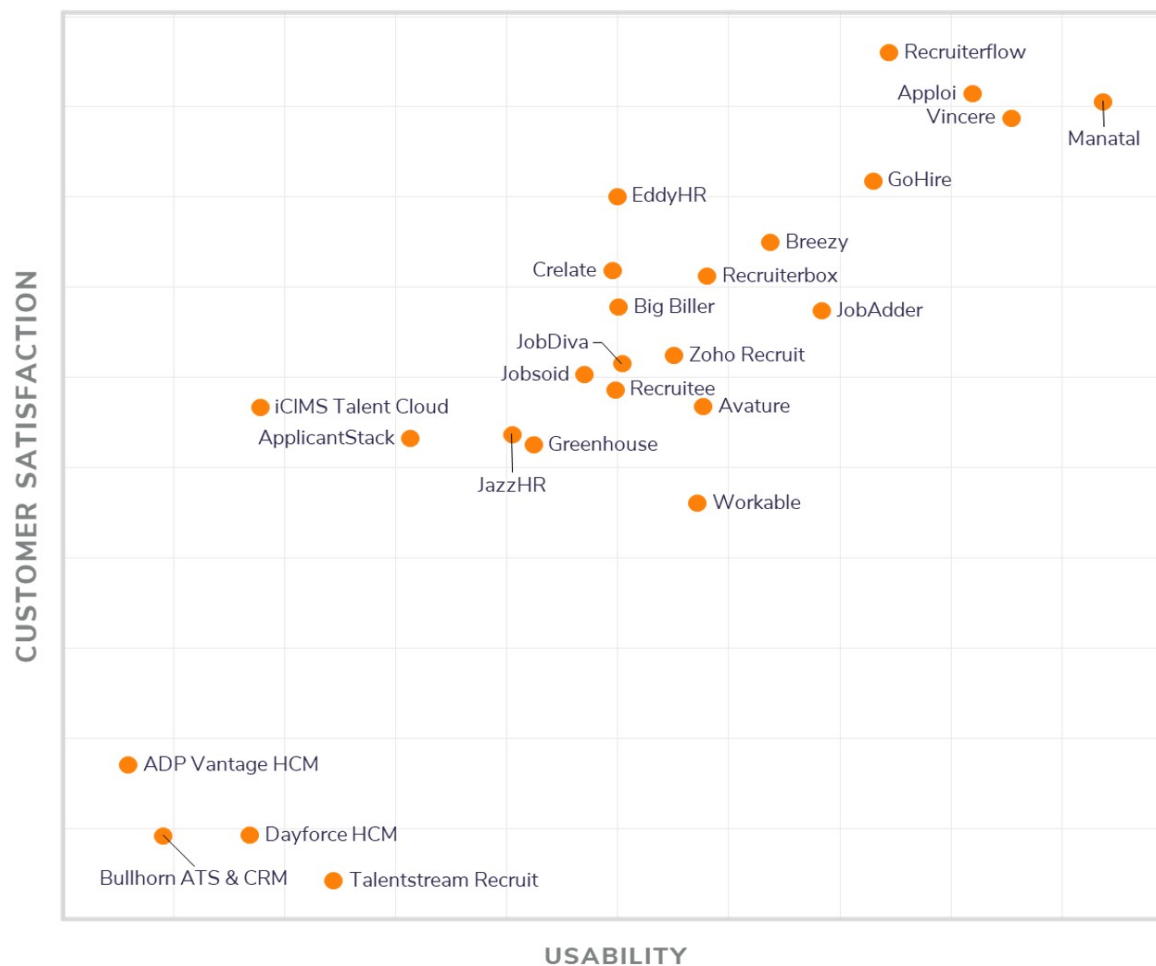
34. General User should be able to choose a secure password with specific security requirements
35. General User shall be able to define ideal location preferences
36. General User shall be able to define ideal job preferences
37. General User shall be able to recover lost account
38. General User shall be able to notify users of any updates/changes
39. General User should be able to deliver reminders to users
40. General User should be able to customize reminder time
41. General User should be able to customize reminder date
42. General User shall be able to see all future schedules
43. General User shall be able to contact users easily
44. General User should be able to make your account private or public
45. General User shall be able to see past completed interviews
46. General User should be able to see previous emails sent
47. General User should be able to see points of contact underneath jobs (if applicable)
48. General User should be able to see the location of job
49. General User shall be able to easily see what the job is requiring
50. General User should be able to be informed if this job is a good match
51. General User should be able to be informed if the job is a bad match
52. General User shall be able to able to assign an evaluation score to a candidate from an interview
53. General User should be able to know the evaluation score of an interview
54. General User should be able to know the name and job title of your interviewer
55. General User shall be able to have the link sent to them for interview
56. General User shall be able to see what jobs they have previously viewed
57. General User shall be able to see what jobs they have already applied for
58. The application shall be should to able to indicate job preferences
59. The application shall be should to have potential jobs sent to them daily
60. The application shall be should to have potential jobs sent to them weekly
61. The application shall be should to have no preferences sent at all
62. General User shall be able to request updates for job postings of a specific company
63. General User shall be able to login easily into account
64. General User shall be able to log out easily of account
65. General User shall be able to option to have account sign in remembered
66. General User shall be able to able to delete account

67. General User shall be able to deactivate account
68. General User should be able to receive notifications for scheduled interviews
69. General User should be able to customize notifications for scheduled interviews
70. General User should be able to choose between light and dark theme for application
71. General User shall be able to cancel interviews
72. General User should be able to request different interview times
73. General User should be able to see who will be attending the Interviews
74. General User should be able to RSVP for an Interview
75. General User shall be able to deny an Interview denial
76. General User shall be able to remind attendees for Interview 15 minutes prior
77. General User shall be able to give users options to change reminder time
78. General User should be able to add description within scheduled interview
79. General User should be able to request to create any non-interview meetings for questions
80. Authorized User shall be able to see which exact candidate is applying
81. Authorized User shall be able to view resume attached to candidate profile
82. Authorized User should be able to contact candidate freely
83. Authorized User shall be able to schedule meeting with candidate freely
84. Authorized User shall be able to score candidate accordingly
85. Authorized User shall be able to see score/interview notes freely
86. Authorized User shall be able to see available contact information for candidate
87. Authorized User should be able to customize profile based on employment within company
88. Authorized User should be able to be verifiable for better perks
89. Authorized User should be able to see other verified accounts
90. General User should be able to follow other users on the site
91. General User should be able to see other users who are on the site
92. Authorized User shall be able to see who you follow and what jobs they have applied for
93. The Application should be able to recommend usernames and passwords for registering users
94. The Application should be able to recommend passwords for users non-registering users
95. The Application should be able to recommend usernames for users non-registering users

96. The Application should be able to have sufficient space for all users on platform
97. The Application should be able to have a limit for resume size
98. The Application should be able to have a preferences in how resume should be submitted
99. The Application should be able to ask user if they are a robot
100. The Application shall be able to deactivate user if they are a robot

## Competitive Analysis

### Current Market Space



(Source: [Software Advice](#))

# Analysis of Top Products

## Comparison #1

Feature/Company	Manatal	BambooHR	Breezy
<b>Strengths</b>	<ul style="list-style-type: none"> <li>-More feature rich and straightforward than other ATSs</li> <li>-Extremely user friendly</li> <li>-Highly accessible and simple to use</li> <li>-An abundant amount of features</li> <li>-Mobile-friendly</li> <li>-Tracking candidates is simple</li> </ul>	<ul style="list-style-type: none"> <li>-Convenient to use and easy to implement</li> <li>-Aesthetically pleasing</li> <li>-Simple to navigate</li> </ul>	<ul style="list-style-type: none"> <li>-Solid reporting and analytics tools</li> <li>-High performance analysis of all resumes sent</li> <li>-Simple to use interface</li> <li>-Simple to configure</li> <li>-Lots of templates for automating workflow</li> </ul>
<b>Weaknesses</b>	<ul style="list-style-type: none"> <li>-Doesn't work as well for resumes in languages other than English</li> <li>-Career Page is only available in English and Spanish</li> <li>-Is unable to do a boolean and an advanced search at the same time</li> </ul>	<ul style="list-style-type: none"> <li>-Some features, such as time tracking and reporting, are not robust</li> <li>- Missing mobile layout</li> <li>-Unable to select a dedicated IT admin</li> <li>-Not as a convenient option in comparison to other ATSs</li> </ul>	<ul style="list-style-type: none"> <li>-Reporting capabilities are nonexistent</li> <li>-Not attached to any API</li> <li>-Expensive compares to other ATSs</li> <li>-Lots of bugs and glitches</li> <li>-Integrations fail regularly and have to be redone</li> </ul>
<b>Pricing</b>	<ul style="list-style-type: none"> <li>-\$15 for Professional Manatal application</li> <li>-\$35 for Enterprise Manatal application</li> </ul>	<ul style="list-style-type: none"> <li>-Starts at \$99/month for 12 employees and each additional employee is \$8.25/month</li> <li>-To include payroll for the employees, it's \$75/month for 10 employees and</li> </ul>	<ul style="list-style-type: none"> <li>-Bootstrap is free</li> <li>-Startup is \$143/month</li> <li>-Growth is \$249/month</li> <li>-Business is \$399/month</li> </ul>

		each additional employee is \$4.25/month	
<b>Onboarding</b>	Onboarding process is simple and convenient, and user interaction is convenient.	Onboarding process is convenient, however users still had some issues with certain features.	Onboarding process is favorable since the interface is very user friendly.
<b>Social Media</b>	Manatal is a popular ATS, and most of its users have little to no complaints about its functionality.	BambooHR seems to have a lot of mixed reviews since users are happy with certain functionalities, but this ATS isn't as robust as other ATS.	Breezy has a lot of negative reviews since it's missing the basic functionalities that other ATSs provide and is pricier in comparison to other ATSs.

## Comparison #2

Feature/Company	Recruiter Flow	Vincere	Apploi
<b>Strengths</b>	<p>accelerate your hiring processes and reduce busywork</p> <p>Job advertising, applications, recruitment process, hiring insights, task tracking, mobile app, candidate on boarding</p>	<p>Uses AI forecasting</p> <p>job advertising, applications, intelligent shortlisting, recruitment process, hiring insights, mobile app, brand web page</p>	<p>Automatic screening of applicants</p> <p>applications, recruitment process, hiring insights, task tracking, mobile app, branded web page</p>
<b>Weaknesses</b>	Lacks job recommendations,	Lacks referrals, fully auto process,	Only for healthcare employers and



	referrals, intelligence shortlisting, fully automated process, offers and negotiation, branded web page, general hr activities	offer and negotiation, task tracking, candidate on-boarding, general hr activities	applicants  Lacks job advertising, recommendations, referrals, intelligent shortlisting, fully automated process, offer negotiation, candidate on boarding, general hr activities
<b>Pricing</b>	\$109 a month \$90 a month annually	\$39 a month	Cost not specified
<b>Onboarding</b>	Portal for candidates to interact with that tracks their progress	N/A	N/A
<b>Social Media</b>	Very popular on social media with little to no complaints by users	Competitive software that has mostly positive reviews	Often seen as a one top shop for posting open positions. Very positive reviews

## Analysis of Product Features

Product	Job Advertising	Job Recommendations	Applications	Referrals	Intelligent shortlisting	Recruitment process	Fully-automated process	Offer and negotiation	Hiring insights	Task tracking	Mobile app	Candidate onboarding	Branded web page	General HR activities
<b>Hiring Guru</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✗	✗
<b>Manatal</b>	✓	✓	✓	✗	✓	✓	✗	✗	✓	✓	✓	✓	✓	✗

BambooHR	✓	✗	✓	✗	✗	✓	✗	✗	✓	✗	✓	✓	✓	✓
Breezy	✓	✗	✓	✗	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓
Recruiter Flow	✓	✗	✓	✗	✗	✓	✗	✗	✓	✓	✓	✓	✗	✗
Vincere	✓	✗	✓	✗	✓	✓	✗	✗	✓	✗	✓	✗	✓	✗
Apploi	✗	✗	✓	✗	✗	✓	✗	✗	✓	✓	✓	✗	✓	✗
Greenhouse	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✓	✗	✓	✓
Go Hire	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✓	✗	✓	✗

## High-Level System Architecture and Technologies Used

Below is a list of the technologies the team has planned to use for this project:

### Backend

- Spring Boot(Java) with Gradle
- IDE - IntelliJ IDEA

### Frontend

- Framework - React | JavaScript
- IDE - Visual Studio Code

### Project Management

- Trello - Kanban

### Continuous Integration

- Github for managing and organizing code and versioning
- Github Actions for Continuous Integration

## Deployment

- Service - AWS Beanstalk with Docker Image
- EC2 Instance Type - Amazon Linux 2 - 1 GB RAM - 8 GB SSD EBS volume

## Database

- DB - PostgreSQL 14.4

## Third Party APIs

- Auth0 for Authentication
- HackerRank API for tests

## Supported Browsers

- Chrome - not dead
- Firefox - not dead

## Checklist

1. Team found a timeslot to meet outside of class
  - a. Yes, the team is meeting every Monday and Wednesday
2. Github Master Chosen
  - a. Yes, Kenneth is the Github Master
3. Team decided and agreed together on using the listed SW tools and deployment server
  - a. Yes, the team is working on the approved stack. Both frontend and backend applications are deployed and CI/CD pipeline is set up.
4. Team ready and able to use the chosen back and front end framework and those who need to learn are working on learning and practicing
  - a. Yes
5. Team lead ensured that all team members read the final M1 and agree/understand it before submission
  - a. We didn't get a lot of time for revision. The team struggled with diagrams because this was the first time they were working on the UML diagrams.
6. Github organized as discussed in class
  - a. Yes, all changes are being made using feature-branches and pull-requests. Master branch is protected against direct commits.

# List of Team Contributions

- Contributions:
  - Kenny Leong
    - M1 editor: responsible for the overall formatting of the document
    - Worked on use cases 3-4
    - Non functional requirements
    - Formatting functional and non-functional requirements
  - Mamadou Bah:
    - Worked on use cases 3-4
    - Non functional requirements
    - Formatting functional and non-functional requirements
  - Khushi Khanna:
    - Worked on use cases 3-4
    - Functional requirements ~50
    - Competitive analysis
  - Eric Leow:
    - Worked on use cases 2
    - Functional requirements ~50
    - Competitive analysis
- Contribution Score:
  - Kenny Leong: 8/10
  - Mamadou Bah: 7/10
  - Khushi Khanna: 7/10
  - Eric Leow: 5/10