**System Documentation**

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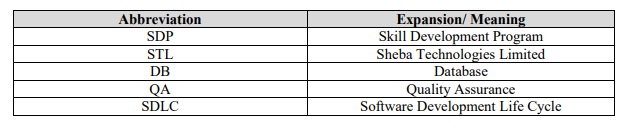
**Introduction**

* 1. Purpose

The purpose of this document is to define the scope and features for the envisaged Online Career Hub for BRAC SDP.

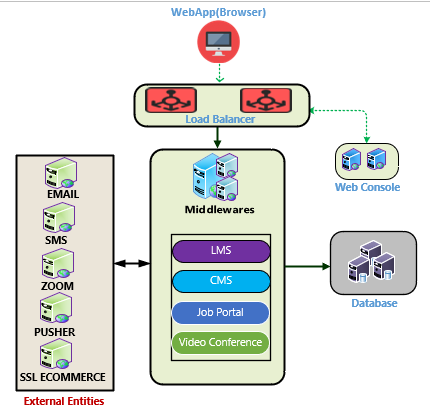
1.2 Scope

1.3 Audience  
  
The main intended audiences for this document are the business owners of the proposed system and the implementation team for the Online Career Hub for BRAC SDP.

1.4 Definitions, Acronyms, and Abbreviations  
  


**System Overview**

**2.1 System Architecture**

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2.2 High-Level Components

2.3 Low-Level Components

2.4 Integration Points

1. SMS:

* URL: https://mydesk.brac.net/smsc/create
* payload:
  + token: f9d6b2437fa104b359510b3f765d141b04e7b428
  + message: “Place Sample Message”
  + to\_number: “Place Number to send to”
  + app\_url: https://careerhub-staging.brac.net/&type=1

1. EMAIL:
   * MAIL\_HOST: smtp.gmail.com
   * MAIL\_PORT: 587
   * MAIL\_ENCRYPTION: tls
   * MAIL\_USERNAME: sdpoch@brac.net
   * MAIL\_PASSWORD: 4nDySqU7KdrCbxWANBm
2. ZOOM: provided during zoom configuration
   * ACCOUNT ID
   * CLIENT ID
   * CLIENT SECRET
3. PUSHER:
   * PUSHER\_APP\_ID=1311873
   * PUSHER\_APP\_KEY=e571c59281dda7b96611
   * PUSHER\_APP\_SECRET=587b6a21e5645a95e140
   * PUSHER\_APP\_CLUSTER=ap2
4. SSL ECOMMERCE:

* SSL\_STORE\_ID: brac61dd5df13b21d
* SSL\_STORE\_PASSWORD: brac61dd5df13b21d@ssl

**System Requirements**

# **3.1 Functional Requirements** System Functions/Features (Functional Requirements):

# Phase -1

|  |  |
| --- | --- |
| Learner Account/ Portfolio | * The learner will be able to conduct the courses using his personal profile at the website. * The learners must be able to register for training courses. * The learners will also give information about their educational qualifications. |
| **Training Hub Module** | |
| Training | * Trainer will be able to design Courses. * Training courses will have specific Start Date, End Date, Total capacity, Trade/Category and Sub-Trade/Sub- Category. * There will be option for upload thumbnail image and video of the Course (to be shown in Landing page) * After each training session, the learners must be able to attend a Survey. * Under the training hub section, the platform will enable trainers to conduct training through both online and offline sessions * The trainer will be able to upload video contents, reading materials etc. * The platform will have option for conduction of live classes * To keep the learners engaged with the platform free offline/online soft skills courses will be offered. These free courses will keep the learners connected to the platform. * Each trainer will be able to conduct attendance in a live class. * Trainer will be able to set passing criteria for the course made by the trainer him or herself. |
| Questionnaires | * Trainers will be able to develop questions for training exams using the existing features. |
| Tracking | * Trainers must be able to see overall progress of individual learner. * The trainer must be able to track the progress of their   learners including the results of quiz tests, assignments and will feed them recommendation for the improvement |
| Certifications | * After the end of training and completing survey questions generated by Admin, trainers can generate certificate for a course. * At the end of training, learner will be able to download certificates. * Participants will be able to share their achieved certificate in LinkedIn via Online Career Hub. * Admin will have the ability to customize or upload of training accomplishment certificates in the platform |
| Forums | * The learners must be able to download certificates after completion of certain training. In addition to this a separate students' forum must be included in the section for initiating active discussions. |
| Monitoring and Reporting | * The platform will provide the trainers a summary report defining the overall performance of learners over the courses including whether they were fully unable to penetrate the   courses. The objective of this summary report will be to |

|  |  |
| --- | --- |
|  | keep the trainer informed of their scope of work for making the training content more understandable to learners.   * Administration officers must be able to see:   The most highly rated course in terms of learners' participation. |

# Phase -2

|  |  |
| --- | --- |
| **Skill Assessment Module** | |
| General option of bulk upload | * Ability of trainers to upload/ modify assessment questions * Psychometric assessment test for learners * In built format for development of assessment questions |
| Assessments | * Assessment of current skills:   + Technical Skills Assessment Test: The learners will appear at psychometric tests against fixed sets of questions and will be scored based on their performances and tests' results. The tests will be categorized into three distinguished categories such as beginner, intermediate and advanced. Each of these categories will enable three different levels of people to judge their current skills. Such as beginner test for novice/early career professionals, intermediate test for mid-career professionals and advanced level test for professionals who have walked a long way in their career.   + Soft Skills Assessment Test: Learners/professionals will also appear at soft skills tests in the similar way and receive a test score afterwards.   + Interest based Psychometric Test: Learners/professionals will also be able give Psychometric Test to understand their interest and hidden potential. * Participants will also be joining Regular/Job type assessment tests; * These individual scores will be stored in the learners' personal database against their account. |
| Improvement Plan | * Participants will get improvement plans created by trainers if they find themselves weak in assessment’s performance; * Improvement plans will be set by Admin; * Participants can request for time extension to admin to complete improvement plan; |
| Results | * Dashboard for displaying of the assessment result * The test results of the learners will be stored under a separate section in the dashboard. |
| Certification Generation Journey | * Admin will be able to create and edit Funding and Signatory Information * Trainer will be able to input funding donor and relevant signatory information from Course Builder * Competent Participants will get the certificate upon successful completion of training from Participant’s Achievements section. |
| Recorded Live Class Session | * Trainer will be able to incorporate the recorded live class session from course builder which will be available to the participants in their day wise course details page. |

# Phase -3

|  |  |
| --- | --- |
| **Actor** | **Tasks** |
| **Admin** | **Pending Employer List Screen** |
| Admin will Approve/Reject the Registration/On-boarding request initiated by Employer. Without Admin's approval Employer user account will not be  created. |
| Admin can See the detail information of an Employer from the List screen  of Registration request before Approving/Rejecting. |
| **Existing User List Screen** |
| Admin can See the detail information of an Employer from the List screen. |
| Admin will edit information of Existing Employers, Active/inactive from List  Screen. |
| **Pending Job Post Screen** |
| After publishing Job by Employer, Admin have to approve. After approval  done, the Job will be displayed to the Participants. |
| Admin will see the Job in detail before Approval from the List screen. |
| **Active Job Post List Screen** |
| Admin can See all Active Job Post of Employer from this List screen. |
| Admin will edit information of Active Job Post, Active/inactive from List  Screen. |
| **Feedback from Participant** |
| For every Participant, Admin will define feedback questionnaires. This  Feedback questionaries’ can be added/modified by Admin. |
| **Job Suggestion Screen** |
| Admin can define based on which fields/information, Participant will get  Job suggestion. |
| Admin can edit information, Active/inactive from this Screen. |
|  |
| **Employer** | **Employer Registration Screen (Sign-up)** |
| Screen design will be as per shared UI xd prototype. |
| **Landing Screen with Employer Dashboard.** |
| Screen design will be as per shared UI xd prototype. |
| **New Job Post Screen** |
| Screen design will be as per shared UI xd prototype. |
| Job Post will have Basic info, Education requirements, Job Responsibility in html Editor screen, specific End Date as Deadline, Vacancy, Additional  information (All field list are in the shared UI xd) |
| **Manage Jobs List Screen** |

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|  | Employer can See all Active Job Post from this List screen. |
| Employer will be able to edit/update specific fields (given below) after posting any job.   1. Number of Vacancy 2. Additional Information 3. Application Deadline   Other than above field if any other information cannot be changed. Otherwise employer have to post a new job with correct information as well as deactivating the posted one. |
| **Internal Job Placement Team (IJPT)** | **Landing Screen with IJPT Dashboard.** |
| Screen design will be as per shared UI xd prototype. |
| **Bulk Job Post** |
| According to Role Management, User Type definition as Internal Job Placement Team, only IJPT type users will get an option for posting bulk job inside 'Post New Job' section. |
| **Participant** | **Landing Screen with Participant Dashboard.** |
| Screen design will be as per shared UI xd prototype. |
| Popular/Available Jobs in Landing Page will be shown based on information  from Participant's Profile. |
| **Jobs For Me Screen** |
| Screen design will be as per shared UI xd prototype. |
| Participant can See Available Jobs from the section. |
| Participant will have Filter option with Category, Sub-Category and Any  Keyword search. |
| **Job Post Detail view screen** |
| Participant can see all Active Job Post from this screen. |
| Participant can Apply on Job Post from Apply Now button. |
| Participant can shortlist the Job Post from this screen. |
| Participant can view all the Job Post from the Employer from a link in this  screen. |
| **Job Apply screen** |
| Participant will enter Expectation info and then complete the Application. |
| Confirmation Message to Participant upon Application. |
| **Applied Job Screen** |
| Participant can see all Applied Job Post from this List screen. |

|  |  |
| --- | --- |
|  | Admin will edit information of Active Job Post, Active/inactive from List  Screen. |
| **Participant Feedback** |
| For every Participant, Admin will define feedback questionnaires’. This  Feedback questionaries’ can be added/modified by Admin. |
| **External Job Post List screen** |
| Participant can See all External Job Post from this screen. |
| This will redirect the Participant to the Employer's portal to complete their  process further. |
| Participants cannot apply jobs until their Profile (CV) is incomplete. |
| Participants can add Job in their shortlist/ wish list. |
| Participant will see job posts from Available Jobs section. |
| Web Scrapping Service Development and Integration |
| **Integration Service** | External Job Posting Service Development and Integration |
| Email / SMS notifications to participants, employers. |
| Notifications to Employers & participants on Job Application events. |
| Job suggestion Algorithm. |
| **Job Engine Service** | External Job Posting Service |
| Web Scrapping Service |

# Phase -4

|  |  |
| --- | --- |
| **Actor** | **Tasks** |
| **Admin** | **Seminar** |
| Admin will be able to create seminar by providing Seminar name and URL |
| System will provide a seminar list for admin, where admin can have the  ability to add new seminar or edit seminar |
| **Assign Center for Counsellor** |
| Admin can See a list for counsellor assigned under a specific center, where  admin will be able to add or edit the list. |
| Admin can assign counsellor under a specific center by selecting center and  counsellor |
| **Cancel Counselling** |
| After publishing counselling session by counsellor, Admin will have the  authority to cancel the session |
| Admin will be able to see the counselling in detail before cancelling from  the List screen. |
| **Feedback from Participant** |
| For every Participant, Admin will define feedback questionnaires. This  Feedback questionaries’ can be added/modified by Admin. |
| **Counsellor** | **View Participant Profile** |
| Counsellor has the authority to view a participant information along with  their progress |
| **Counselling Session** |
| Counsellor can send invitation of zoom link to the participant |
| System will provide a list view for ongoing counselling session |
| **Take notes or give task for the session** |
| Counsellor can take notes for the counselling session. |
| Counsellor can assign task to a participant based on the counselling session. |
| **Requested participant for counselling** |
| Counsellor can see a list of participant who requested for counselling |
| **Participant** | **View Seminar** |
| Screen design will be as per shared UI xd prototype. |
| Participant will have the ability to access the seminar URL |
| **Request for Career Counselling** |
| Screen design will be as per shared UI xd prototype. |
| Participant can request for career counselling after completing assessment. |
| **Counselling Session** |
| Participant can see Counselling invitation |
| Participant can accept or reject counselling |
| Participant can join counselling session after accepting |

|  |  |
| --- | --- |
|  | **Participant Feedback** |
| For every Participant, Admin will define feedback questionnaires’. This  Feedback questionaries’ can be added/modified by Admin. |

## **3.2 Non-Functional Requirements** Usability Requirements

* + - User friendly Graphical User Interface (GUI); Easy navigation;

## Reliability Requirements

* + - Precisions should be appropriate all over the queries/calculations;
    - Strong role based functionality access security mechanism;
    - Data consistency will be provided across the application; Proper data validation will be there;

## Performance Requirements

* + - Quick report generation facility;
    - Process time will be optimum;
    - Appropriate messaging will be there;

**3.2.1 Performance**

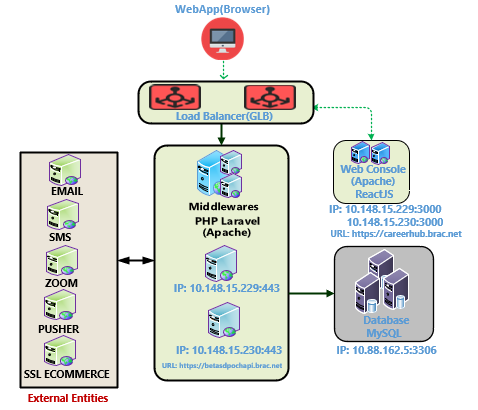
**3.2.2 Security**

**3.2.3 Reliability**

**3.2.4 Usability**

**System Design**

4.1 Architecture Design



4.2 Database Design

4.3 User Interface Design

**4.4 API Design**

* Endpoints Authenticated with JWT Bearer Token
* Token salt length: 10
* Token Algorithm: HS256

**Data Flow and Process Flow (SDP)**

5.1 Data Flow Diagrams



5.2 Process Flow Diagrams

**Deployment**

6.1 Hardware Requirements  
6.2 Software Requirements  
6.3 Deployment Diagram

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