

Technical Proposal

For

Web Based Software “CSTI Curriculum – CSTIC”

Prepared for



Command and Staff Training Institute (CSTI)

Submitted By



Swapnoloke

83/2 Borobag, Mirpur-2
Dhaka 1216, Bangladesh

Table of Contents

A.	TECHNICAL PROPOSAL.....	3
A.1	DEVELOPMENT PLATFORM	3
A.2	TECHNICAL SPECIFICATION.....	3
A.2.1	SOFTWARE SPECIFICATION	3
A.3	DEVELOPMENT TIME-LINE.....	16

A. TECHNICAL PROPOSAL

A.1 DEVELOPMENT PLATFORM

- ❖ Web Server: Apache
- ❖ Database: MySQL
- ❖ Web Scripting Language: PHP
- ❖ PHP Framework: Laravel
- ❖ Implementation Area: LAN/MAN/WAN/Internet/Standalone Machine
- ❖ Environment/OS: Linux
- ❖ Client Scripting Language: JavaScript
- ❖ Asynchronous Technology: AJAX
- ❖ Java Script frameworks : JQuery/jQuery UI
- ❖ JavaScript Framework for Responsive Theme: Twitter Bootstrap
- ❖ UI/Template: xHTML

A.2 TECHNICAL SPECIFICATION

A.2.1 SOFTWARE SPECIFICATION

SERIAL	FEATURES
MODULE-I	ISSP MODULE
A	User Group
A.1	View User Group
A.1.1	<i>Administrator</i>
A.1.2	<i>OC</i>
A.1.3	<i>CI</i>
A.1.4	<i>DS</i>
A.1.5	<i>Student</i>
A.2	Update Group
B	Rank Management
B.1	View Ranks
B.2	Create Rank
B.2.1	<i>Title</i>
B.2.2	<i>Order</i>
B.2.3	<i>Status</i>
B.3	Edit Rank
B.4	Delete Rank
C	Appointment Management

C.1	View Appointments
C.2	Create Appointment
C.2.1	<i>Title</i>
C.2.2	<i>Order</i>
C.2.3	<i>Status</i>
C.3	Edit Appointment
C.4	Delete Appointment
D	User Management
D.1	View Users
D.2	Create New User
D.2.1	<i>Select Group</i>
D.2.2	<i>Select Rank</i>
D.2.3	<i>Select Appointment</i>
D.2.4	<i>Select Course (If Group is Student)</i>
D.2.5	<i>Maximum Tenure (3 years) auto set (If Group is Student)</i>
D.2.6	<i>Personal/Service No</i>
D.2.7	<i>First Name</i>
D.2.8	<i>Last Name</i>
D.2.9	<i>Official Name/Nickname</i>
D.2.10	<i>Email Address</i>
D.2.11	<i>Phone Number</i>
D.2.12	<i>Username</i>
D.2.13	<i>Password</i>
D.2.14	<i>Confirm Password</i>
D.2.15	<i>Photo</i>
D.2.16	<i>Status(Active/Inactive)</i>
D.3	Edit User
D.4	Delete User
E	Course Management
E.1	View Courses
E.2	Create New Course Entry
E.2.1	<i>Course Title</i>
E.2.2	<i>Course Serial Number</i>
E.2.3	<i>Course Session (From Date - To Date)</i>
E.2.4	<i>Number of Weeks</i>
E.3	Edit Course Information
E.4	Delete Course Entry
F	Student Profile

F.1	Basic Information
F.1.4	Present Organization/Unit
F.1.5	Formation
F.1.6	Name of Commanding Officer
F.1.7	Contact Number of Commanding Officer
F.1.9	Place of Birth
F.1.10	Religion
F.1.11	Nationality
F.1.12	Gender
F.1.13	Course in Bangladesh Military Academy
F.1.14	Date of Commission
F.1.15	Appointment in Bangladesh Military Academy
F.1.16	Course Position During Passing Out (Out of)
F.1.17	Marital Status
F.1.18	Present Address
F.1.19	Permanent Address
F.1.20	Status (Active/Inactive)
F.2	Family Information
F.2.1	Father's Name
F.2.2	Father's Occupation
F.2.3	Father's Contact Number
F.2.4	Father's Detail
F.2.5	Mother's Name
F.2.6	Mother's Occupation
F.2.7	Children Information
F.2.7.1	<i>View children information</i>
F.2.7.2	<i>Create children information</i>
F.2.7.2.1	<i>Name of Child</i>
F.2.7.2.2	<i>Date of Birth</i>
F.2.7.2.3	<i>Educational Level</i>
F.2.7.2.4	<i>Gender</i>
F.2.7.2.5	<i>Order</i>
F.2.7.3	<i>Edit children information</i>
F.2.7.4	<i>Delete children information</i>
F.2.8	Brothers/Sisters Information
F.2.8.1	<i>View children information</i>
F.2.8.2	<i>Create children information</i>
F.2.8.2.1	<i>Type (Brother/Sister)</i>

F.2.8.2.2	<i>Name</i>
F.2.8.2.3	<i>Age</i>
F.2.8.2.4	<i>Occupation</i>
F.2.8.2.5	<i>Address</i>
F.2.8.2.6	<i>Gender</i>
F.2.8.2.7	<i>Order</i>
F.2.8.3	<i>Edit children information</i>
F.2.8.4	<i>Delete children information</i>
F.2.9	Civil Education Information
F.2.9.1	<i>View Civil Education</i>
F.2.9.2	<i>Create Civil Education</i>
F.2.9.2.1	<i>Serial</i>
F.2.9.2.2	<i>Institute</i>
F.2.9.2.3	<i>Year</i>
F.2.9.2.4	<i>Examination</i>
F.2.9.2.5	<i>Result</i>
F.2.9.3	<i>Edit Civil Education</i>
F.2.9.4	<i>Delete Civil Education</i>
F.2.10	Service Record
F.2.10.1	<i>View Service Record</i>
F.2.10.2	<i>Create Service Record</i>
F.2.10.2.1	<i>Serial</i>
F.2.10.2.2	<i>Unit/Organization</i>
F.2.10.2.3	<i>Appointment Held</i>
F.2.10.2.4	<i>Year</i>
F.2.10.3	<i>Edit Service Record</i>
F.2.10.4	<i>Delete Service Record</i>
F.2.11	Honors/Awards Information
F.2.11.1	<i>View Honors/Awards</i>
F.2.11.2	<i>Create Honors/Awards Entry</i>
F.2.11.2.1	<i>Serial</i>
F.2.11.2.2	<i>Honors/Awards</i>
F.2.11.2.3	<i>Year</i>
F.2.11.2.4	<i>Reason</i>
F.2.11.3	<i>Edit Honors/Awards Entry</i>
F.2.11.4	<i>Delete Honors/Awards Entry</i>
F.2.12	Punishment Record
F.2.12.1	<i>View Punishment Records</i>

F.2.12.2	<i>Create Punishment Record</i>
F.2.12.2.1	<i>Serial</i>
F.2.12.2.2	<i>Punishment</i>
F.2.12.2.3	<i>Year</i>
F.2.12.2.4	<i>Reason</i>
F.2.12.3	<i>Edit Punishment Record</i>
F.2.12.4	<i>Delete Punishment Record</i>
F.2.13	Relative in Defence Services
F.2.13.1	<i>View Relative Records</i>
F.2.13.2	<i>Create Relative Entry</i>
F.2.13.2.1	<i>Serial</i>
F.2.13.2.2	<i>Rank</i>
F.2.13.2.3	<i>Name</i>
F.2.13.2.4	<i>Service Location</i>
F.2.13.2.5	<i>Relation with Student</i>
F.2.13.2.6	<i>Remark</i>
F.2.13.3	<i>Edit Relative Record</i>
F.2.13.4	<i>Delete Relative Record</i>
F.2.14	Return to Unit from any Course in CSTI
F.2.14.1	<i>Detail information</i>
F.2.15	Courses Attended
F.2.15.1	<i>View Courses</i>
F.2.15.2	<i>Create New Course Entry</i>
F.2.15.2.1	<i>Serial</i>
F.2.15.2.2	<i>Course</i>
F.2.15.2.3	<i>Institution</i>
F.2.15.2.4	<i>Year</i>
F.2.15.2.5	<i>Grading</i>
F.2.15.3	<i>Edit Course Entry</i>
F.2.15.4	<i>Delete Course Entry</i>
F.2.16	Medical Details
F.2.16.1	<i>View Details</i>
F.2.16.2	<i>Create Medical Detail</i>
F.2.16.2.1	<i>Category</i>
F.2.16.2.2	<i>Blood Group</i>
F.2.16.2.3	<i>Date of Birth</i>
F.2.16.2.4	<i>Height</i>
F.2.16.2.5	<i>Weight</i>

F.2.16.2.6	<i>Over/Under Weight</i>
F.2.16.2.7	<i>Any Disease (Yes/No)</i>
F.2.16.2.8	<i>Disease Description</i>
F.2.16.3	<i>Edit Medical Details</i>
F.2.16.4	<i>Delete Medical Details</i>
G	Part Management
G.1	View Parts
G.1.1	<i>Part Title</i>
G.1.2	<i>Part Details</i>
G.1.3	<i>Part Order</i>
G.1.4	<i>Status</i>
G.2	Edit Part Information
H	Relate Part with Course
H.1	Select Course (Parts will be auto loaded)
H.2	Choose Parts (and save)
I	Phase Management
I.1	View Phases
I.2	Create Phase
I.2.1	<i>Select Part</i>
I.2.2	<i>Phase Name</i>
I.2.3	<i>Phase Details</i>
I.2.4	<i>Phase Order</i>
I.2.5	<i>Status</i>
I.3	Edit Phase
I.4	Delete Phase
J	Relate Phase with Part
J.1	Select Course (Parts will be auto loaded)
J.2	Select Part (Phases will be auto loaded)
J.3	Choose Phases (and save)
K	Subject Management
K.1	View Subjects
K.2	Create Subject
K.2.1	<i>Subject Title</i>
K.2.2	<i>Subject Code</i>
K.2.3	<i>Subject Detail</i>
K.2.4	<i>Subject Order</i>
K.2.5	<i>Status</i>
K.3	Edit Subject

K.4	Delete Subject
L	Assign Subject to Phase
L.1	Select Course (Parts will be auto loaded)
L.2	Select Part (Phases will be auto loaded)
L.3	Phases will be loaded at Left Side
L.4	Subjects will be loaded at right side
L.5	Mapping will be done as One to One Mode
M	TAE (Tutor Assessed Exercise) Test Management
M.1	View TAE
M.2	Create TAE
M.2.1	<i>Select Course (Parts will be auto loaded)</i>
M.2.2	<i>Select Part (Phases with Subjects will be auto loaded)</i>
M.2.3	<i>Select Subject</i>
M.2.3.1	<i>Title</i>
M.2.3.2	<i>Start Date-Time/Publish Date-time</i>
M.2.3.3	<i>Deadline/Closing Date-time</i>
M.2.3.4	<i>Attach E-Book (PDF Copy)</i>
M.2.3.5	<i>Attach Question (PDF Copy)</i>
M.2.3.6	<i>Download Feature of E-Book & Question</i>
M.2.3.7	<i>Status (Active/Inactive)</i>
M.3	Edit TAE
M.4	Delete TAE (Check for Assignment before deletion)
N	EPE (End of Phase Exam) Center Management
N.1	View Centers
N.2	Create New Center
N.2.1	<i>Name of the Center</i>
N.2.2	<i>Contact Number of the Center</i>
N.2.3	<i>Center In Charge</i>
N.2.3.1	<i>Name</i>
N.2.3.2	<i>Rank</i>
N.2.3.3	<i>Appointment</i>
N.2.3.4	<i>Contact Number</i>
N.2.3.5	<i>Email Address</i>
N.2.3.6	<i>Photo</i>
N.2.3.7	<i>Official Contact</i>
N.2.4	<i>Center Address</i>
N.2.5	<i>Country</i>
N.3	Edit Center Information

N.4	Delete Center
O	EPE (End of Phase Exam) Test Management
O.1	View EPE
O.2	Create EPE
O.2.1	<i>Select Course (Parts will be auto loaded)</i>
O.2.2	<i>Select Part (Phases with Subjects will be auto loaded - TAE deadline is over)</i>
O.2.3	<i>Select Subject</i>
O.2.3.1	<i>Test Title</i>
O.2.3.2	<i>Total Number of Questions from Question Bank (Described Module-II)</i>
O.2.3.3	<i>Question Order (Random or Ordered)</i>
O.2.3.4	<i>Answer Order (Random or Ordered)</i>
O.2.3.5	<i>Total Test Time</i>
O.2.3.6	<i>Total Marks</i>
O.2.3.7	<i>Status (Active/Inactive)</i>
O.3	Edit EPE
O.4	Delete EPE (Check for participation of students before deletion)
P	EPE Question Management - [Open write-up/Text area]
P.1	View Question
P.2	Create Questions
P.2.1	<i>Select Test</i>
P.2.2	<i>Create Question</i>
P.2.3	<i>Question Title</i>
P.2.4	<i>Answer Clue</i>
P.2.5	<i>Marks per question</i>
P.1	Edit Question
P.2	Delete Question
Q	EPE Test Schedule
Q.1	View Tests
Q.2	Set Schedule
Q.2.1	<i>Start Date/time</i>
Q.2.2	<i>End Date/Time</i>
Q.3	Edit Schedule
Q.4	Delete Schedule
R	Marks Distribution
R.1	Select Course (Parts will be auto loaded)
R.2	Select Part (Phases with Subjects will be auto loaded)
R.3	Select Subject
R.3.1	<i>Set Marks (Total Marsk Passing Marks)</i>

R.3.1.1	<i>TAE (Total Marks Passing Marks)</i>
R.3.1.2	<i>EPE (Total Marks Passing Marks)</i>
S	Relate Student with EPE Center
S.1	Assign Students to EPE Center
S.1.1	<i>Select Course (Parts will be auto loaded)</i>
S.1.2	<i>Select Part (Phases with Subjects will be auto loaded -)</i>
S.1.3	<i>Select Subject</i>
S.1.4	<i>Select EPE Center</i>
S.1.5	<i>Select Test</i>
S.1.5.1	<i>Choose Students</i>
T	TAE Assignment Submission by Students
T.1	Choose Subject
T.2	Choose Test
T.3	Download/Print E-Book
T.4	Download/Print Question
T.5	Upload Assignment in PDF format
U	Sit for EPE Exam by Students
U.1	Enter to the Exam Center
U.2	Login to the System
U.3	Choose Subject
U.4	Choose Test
U.4.1	<i>Answer Question wise answer online (Write down in online Form)</i>
U.4.2	<i>Preview Answers</i>
U.4.3	<i>Submit Final Answer Sheet</i>
V	Assign Assessment Authority (DS/CI) to Subject
V.1	Assign DS to Subject
V.1.1	Select Course (Parts will be auto loaded)
V.1.2	Select Part (Phases with Subjects will be auto loaded)
V.1.3	Select Subject
V.1.3.1	<i>Choose DS</i>
V.2	Assign CI to Subject
V.2.1	Select Course
V.2.1.1	<i>Choose CI</i>
W	Assess Students and Put Marks Online
W.1	Assess Students and Put Marks Online by DS
W.1.1	Select Course
W.1.2	Select Part
W.1.3	Select Phase/Subject

W.1.4	Select Test (All students will be shown with Marks Field)
W.1.4.1	<i>Put Marks Against Students Record</i>
W.1.4.2	<i>Upload Scanned copy assessed sheet for further reference (For TAE)</i>
W.2	Compile Marks of a Course by CI
W.2.1	Select Course
W.2.2	<i>View All Students, all subject result Summary</i>
W.2.3	<i>Generate Assessment Sheet/Print/Download</i>
X	Student Migration
X.1	Search with Unique Registration no
X.2	Show Current Status of the Student
X.3	Authenticate the Student's eligibility to be enrolled
X.4	Enroll the student to New Course (if within 3 years range)
X.5	Keep historical data (Previous Course performance summary)
Y	Reports
Y.1	Phase/Subject wise Assessment Report
Y.2	Course wise Report
Y.2.1	<i>Summary Report</i>
Y.2.2	<i>Total Pass Records</i>
Y.2.3	<i>Total Failed Records</i>
Y.2.4	<i>Migration Report</i>
Y.2.5	<i>Position Report</i>
Y.3	Center wise allocation report
Y.4	Individual Student Data Analysis
Y.5	Part wise Report
Y.6	Center wise pass/fail report of a course
Y.7	Country wise Student List
Module-II	Question Bank
A	Question Type List
A.1	<i>Multiple Choice Single Answer</i>
A.2	<i>Multiple Choice Multiple Answer</i>
A.3	<i>Filling the Blank</i>
A.4	<i>Free Text (Open Write up)</i>
A.5	<i>True/False</i>
A.6	<i>Matching</i>
A.7	<i>Drag and Drop</i>
B	Question Management
B.1	View Questions
B.2	Create New Question
B.2.1	<i>Question Text</i>

B.2.2	<i>Select Question Type</i>
B.2.3	<i>Choice Options (MCQ)</i>
B.2.4	<i>Correct Option (s) selection (MCQ)</i>
B.2.5	<i>Correct Answer (Filling the Blank)</i>
B.2.6	<i>Open Space for write up (Open Text)</i>
B.2.7	<i>True/False Answer Define (True/False)</i>
B.2.8	<i>Relate Left side-right side parameters (Matching/Drag-and-Drop)</i>
B.2.9	<i>Question wise time setup</i>
B.2.10	<i>Question Hint Set up</i>
B.3	Search Question (Keyword based AJAX Search)
B.4	Filter Question
B.5	Edit Question
B.6	Delete Question
C	Question Set Management
C.1	View Question Sets
C.2	Create Question Set
C.2.1	<i>Choose EPE Test</i>
C.2.2	<i>Set Number of Question</i>
C.2.3	<i>Set Type wise number of Questions</i>
C.2.4	<i>Set presentation method (Ordered/Random)</i>
C.3	Edit Question Set
C.4	Delete Question Set
D	Reports
D.1	Date wise Question Creation Report
D.2	Question Type wise Report
D.3	Summary Report
D.4	Question Set wise Report
Module-III	JC&SC
A	Features Inheritance
A.1	Use features From Section-A through Section-F of Module-I
B	Subject Management
B.1	View Subjects
B.2	Create Subject
B.2.1	<i>Subject Title</i>
B.2.2	<i>Subject Code</i>
B.2.3	<i>Subject Detail</i>
B.2.4	<i>Subject Order</i>
B.2.5	<i>Status</i>
B.3	Edit Subject

B.4	Delete Subject
C	Relate Subject with Course
C.1	Select Course
C.2	Choose Subjects
C.3	Save Related Subjects
D	Exercise Management
D.1	View Exercises
D.2	Create Exercise
D.2.1	Exercise <i>Title</i>
D.2.2	Exercise <i>Code</i>
D.2.3	Exercise <i>Detail</i>
D.2.4	Exercise <i>Order</i>
D.2.5	<i>Status</i>
D.3	Edit Exercise
D.4	Delete Exercise
E	Relate Exercise with Subject
E.1	Select Subject
E.2	Choose Exercises
E.3	Save Related Exercises
F	Marks Distribution Particular (e..g. written, Viva etc)
F.1	View Particulars
F.2	Create Particular
F.2.1	Title
F.2.2	Total marks for Specific Particular
F.2.3	Description
F.2.4	Order
F.2.5	Status (Active/Inactive)
F.3	Edit Particular
F.4	Delete Particular
G	Grading System Management
G.1	View Grading
G.2	Create New Grade
G.2.1	Grade Name
G.2.2	From Mark (%)
G.2.3	To Mark (%)
G.2.4	Order
G.3	Edit Grade
G.4	Delete Grade
H	Assign Assessment Authority (DS/CI) to Subject

H.1	Assign DS to Subject
H.1.1	Select Course (Subjects will be auto loaded)
H.1.2	Select Subject
H.1.3.1	<i>Choose DS</i>
H.2	Assign CI to Course
H.2.1	Select Course
H.2.1.1	<i>Choose CI</i>
I	Assess Students and Put Marks Online
I.1	Assess Students and Put Marks Online by DS
I.1.1	Select Course
I.1.2	Select Subject
I.1.3	Select Exercise (All students will be shown with Marks Field)
I.1.3.1	<i>Put Marks Against Students Record</i>
I.1.3.2	<i>Upload Scanned copy assessed sheet for further reference (For TAE)</i>
I.2	Compile Marks of a Course by CI
I.2.1	Select Course
I.2.2	<i>View All Students, all subject result Summary</i>
I.2.3	<i>Generate Assessment Sheet/Print/Download</i>
J	Reports
J.1	Phase/Subject wise Assessment Report
J.2	Course wise Report
J.2.1	<i>Summary Report</i>
J.2.2	<i>Total Pass Records</i>
J.2.3	<i>Total Failed Records</i>
J.2.4	<i>Migration Report</i>
J.2.5	<i>Position Report</i>
J.3	Individual Student Data Analysis
J.4	Center wise pass/fail report of a course
J.5	Country wise Student List
J.6	Exercise wise Marks Report
Module-IV	Question Upload
A	Question upload criteria
A.1	<i>7 types of questions (Module-II, Section-A)</i>
A.2	<i>10 questions per type (maximum)</i>
A.3	<i>16 Phases/Subjects (8 Phases/Subjects X 2 Parts)</i>
A.4	<i>Total: 1 X 10 X 16 = 1,120 Questions (maximum)</i>

A.3 DEVELOPMENT TIME-LINE

Deliverables \ Deadline	15 August 2017	07 September 2017	07 March 2018
ISSP with TAE module launch			
ISSP with EPE module and Question Bank for EPE module			
Final delivery with JC&SC assessment module and Training			
Finish Free Warranty Period			