

1. a) Write program for calculating even numbers from 1 – 10 and design test cases for the same (5 test cases)

ANS:

Code:-

```
#include <stdio.h>
```

```
int main() {  
    printf("Even numbers from 1 to 10 are:\n");  
  
    for (int i = 1; i <= 10; i++) {  
        if (i % 2 == 0) {  
            printf("%d ", i);  
        }  
    }  
  
    printf("\n");  
    return 0;  
}
```

Test cases:-

b) Design test cases for login form ?

ANS:

Test Case No	Test Case Name	Actual Input	Expected Output	Actual Output	Status
TC-01	Login with valid credentials	Username: valid_user Password: Valid@123	It should login user successfully	It is logging in user successfully	Pass
TC-02	Login with invalid username	Username: invalid_user Password: Valid@123	It should display Error: "Invalid username or password."	It is displaying Error: "Invalid username or password."	Pass
TC-03	Login with invalid password	Username: valid_user Password: WrongPass	It should display Error: "Invalid username or password."	It is displaying Error: "Invalid username or password."	Pass
TC-04	Login with blank username and password	Username: (empty) Password: (empty)	It should display Error: "Fields cannot be empty."	It is displaying Error: "Fields cannot be empty."	Pass
TC-05	Password masking functionality	Enter password: MySecret123	Password should appear as *****.	Password is appearing as *****.	Pass
TC-06	Exceed maximum username length	Username: 51 characters Password: Valid@123	It should display Error: "Username exceeds allowed length."	It is displaying Error: "Username exceeds allowed length."	Pass

2. Design test cases for online mobile recharge (Data field are Mobile number , State, email Id, recharge amount) (12 test cases) ?

ANS:

Test Case No	Test Case Name	Actual Input	Expected Output	Actual Output	Status
TC-01	Valid input for all fields	Mobile: 9876543210 State: Maharashtra Email: user@example.com Amount: 200	Recharge should be done successfully	Recharge is done successfully	Pass
TC-02	Invalid mobile number (too short)	Mobile: 98765 State: Maharashtra Email: user@example.com Amount: 200	It should display Error: "Invalid mobile number."	It is displaying Error: "Invalid mobile number."	Pass
TC-03	Invalid mobile number (contains letters)	Mobile: 98765abc10 State: Maharashtra Email: user@example.com Amount: 200	It should display Error: "Invalid mobile number."	It is displaying Error: "Invalid mobile number."	Pass
TC-04	Invalid email format	Mobile: 9876543210 State: Maharashtra Email: userexample.com Amount: 200	It should display Error: "Invalid email format."	It is displaying Error: "Invalid email format."	Pass
TC-05	Blank mobile number	Mobile: (empty) State: Maharashtra Email: user@example.com Amount: 200	It should display Error: "Mobile number is required."	It is displaying Error: "Mobile number is required."	Pass
TC-06	Invalid recharge amount (zero)	Mobile: 9876543210 State: Maharashtra Email: user@example.com Amount: 0	It should display Error: "Recharge amount must be greater than zero."	It is displaying Error: "Recharge amount must be greater than zero."	Pass
TC-07	Invalid recharge amount (negative)	Mobile: 9876543210 State: Maharashtra Email: user@example.com Amount: -50	It should display Error: "Recharge amount must be greater than zero."	It is displaying Error: "Recharge amount must be greater than zero."	Pass
TC-08	Blank state	Mobile: 9876543210 State: (empty) Email: user@example.com Amount: 200	It should display Error: "State is required."	It is displaying Error: "State is required."	Pass
TC-09	Recharge amount exceeding limit	Mobile: 9876543210 State: Maharashtra Email:	It should display Error: "Recharge amount cannot exceed 50,000."	It is displaying Error: "Recharge amount cannot exceed 50,000."	Pass

		user@example.com Amount: 50001			
TC-10	Valid mobile number with different states	Mobile: 9876543210 State: Karnataka Email: user@example.com Amount: 300	It should display Recharge should be successful.	Recharge is successful.	Pass
TC-11	Multiple failed attempts for recharge	5 incorrect email formats: user@com Other fields valid.	System should temporarily block further attempts.	System temporarily blocks further attempts.	Pass
TC-12	Invalid email domain	Mobile: 9876543210 State: Maharashtra Email: user@invalid_domain Amount: 300	It should display Error: "Invalid email domain."	It is displaying Error: "Invalid email domain."	Pass
TC-13	Special characters in state field	Mobile: 9876543210 State: M@harashtra! Email: user@example.com Amount: 300	It should display Error: "State must not contain special characters."	It is displaying Error: "State must not contain special characters."	Pass
TC-14	Email field left blank	Mobile: 9876543210 State: Maharashtra Email: (empty) Amount: 300	It should display Error: "Email ID is required."	It is displaying Error: "Email ID is required."	Pass

3. Design test cases for hostel admission form of your institute ?

ANS:

Test Case No	Test Case Name	Actual Input	Expected Output	Actual Output	Status
TC-01	Valid input for all fields	Name: John Doe Age: 20 Gender: Male Address: City A Contact: 9876543210 Parent Contact: 9876543211 Course: B.Tech Year: 2 Previous Academic: Passed Room: Single	It should submit form successfully.	Form submitted successfully.	Pass
TC-02	Blank name field	Name: (empty)	It should display Error: "Name field is required."	It is displaying Error: "Name field is required."	Pass

TC-03	Invalid age (below minimum limit)	Age: 15	It should display Error: "Age must be 17 or above."	It is displaying Error: "Age must be 17 or above."	Pass
TC-04	Invalid contact number format	Contact: 98765abc10	It should display Error: "Invalid contact number."	It is displaying Error: "Invalid contact number."	Pass
TC-05	Special characters in name	Name: John@Doe	It should display Error: "Name must not contain special characters."	It is displaying Error: "Name must not contain special characters."	Pass
TC-06	Missing address	Address: (empty)	It should display Error: "Address is required."	It is displaying Error: "Address is required."	Pass
TC-07	Invalid parent contact	Parent Contact: 123	It should display Error: "Invalid parent contact number."	It is displaying Error: "Invalid parent contact number."	Pass
TC-08	Invalid room preference	Room Preference: None	It should display Error: "Room preference must be selected."	It is displaying Error: "Room preference must be selected."	Pass
TC-09	Valid input with special gender field	Gender: Non-Binary	It should display Form submitted successfully.	It is displaying Form submitted successfully.	Pass
TC-10	Invalid course/year combination	Course: B.Tech Year: 5	It should display Error: "Year must be valid for the selected course."	Error: "Year must be valid for the selected course."	Pass
TC-11	Invalid academic details format	Previous Academic Details: 123Pass	It should display Error: "Invalid academic details format."	Error: "Invalid academic details format."	Pass
TC-12	Invalid duplicate contact numbers	Contact: 9876543210 Parent Contact: 9876543210	It should display Error: "Contact and Parent Contact must be different."	Error: "Contact and Parent Contact must be different."	Pass

4. Design test cases for railway reservation system ?

ANS:

Test Case No	Test Case Name	Actual Input	Expected Output	Actual Output	Status
TC-01	Book ticket with valid details	Train No: 12345, Date: 2024-11-25, Class: Sleeper, Passenger Name: John, Age: 30	It should book ticket successfully	Ticket booked successfully.	Pass
TC-02	Book ticket with past date	Date: 2023-11-20	It should display Error: "Date cannot be in the past."	It is displaying Error: "Date cannot be in the past."	Pass
TC-03	Invalid train number	Train No: 99999	It should display Error: "Invalid train number."	It is displaying Error: "Invalid train number."	Pass
TC-04	Missing passenger details	Passenger Name: (empty)	It should display Error: "Passenger details required."	It is displaying Error: "Passenger details required."	Pass
TC-05	Invalid passenger age	Age: -5	It should display Error: "Invalid passenger age."	It is displaying Error: "Invalid passenger age."	Pass
TC-06	Check availability for valid input	Train No: 12345, Date: 2024-11-25, Class: AC	It should display availability successfully.	It is displaying Availability successfully	Pass
TC-07	Check availability for invalid class	Train No: 12345, Date: 2024-11-25, Class: First Class	It should display Error: "Class not available."	It is displaying Error: "Class not available."	Pass
TC-08	Payment with valid card	Card: 1234-5678-9012-3456, Expiry: 12/26, CVV: 123	Payment successful.	Payment successful.	Pass
TC-09	Payment with expired card	Card: 1234-5678-9012-3456, Expiry: 12/22, CVV: 123	It should display Error: "Card expired."	It is displaying Error: "Card expired."	Pass
TC-10	Booking waitlisted ticket	Train No: 12345, Date: 2024-11-25, Class: Sleeper	Ticket added to waitlist.	Ticket added to waitlist.	Pass
TC-11	Cancel booked ticket	PNR: 4567890123	Ticket cancelled successfully.	Ticket cancelled successfully.	Pass
TC-12	Cancel ticket with invalid PNR	PNR: 9999999999	It should display Error: "Invalid PNR number."	It is displaying Error: "Invalid PNR number."	Pass
TC-13	Book ticket without seat availability	Train No: 12345, Date: 2024-11-25, Class: Sleeper	It should display Error: "No seats available."	It is displaying Error: "No seats available."	Pass
TC-14	Search train with valid details	Source: Mumbai, Destination: Delhi, Date: 2024-11-25	Train list displayed successfully.	Train list displayed successfully.	Pass

5. With respect to GUI testing write test cases for amazon login form (12 test cases)

ANS:

Test Case No	Test Case Name	Actual Input	Expected Output	Actual Output	Status
TC-01	Valid login with correct credentials	Username: user@example.com Password: Valid123	User should be logged in successfully.	User logged in successfully, redirected to homepage.	Pass
TC-02	Invalid login with incorrect username	Username: wronguser@example.com Password: Valid123	It should display Error: "We cannot find an account with that email address"	Error displayed: "We cannot find an account with that email address."	Pass
TC-03	Invalid login with incorrect password	Username: user@example.com Password: Wrong123	It should display Error: "Incorrect password"	It is displaying Error: "Incorrect password."	Pass
TC-04	Blank username field	Username: (empty) Password: Valid123	It should display Error: "Enter your email or mobile phone number"	It is displaying Error : "Enter your email or mobile phone number."	Pass
TC-05	Blank password field	Username: user@example.com Password: (empty)	It should display Error: "Enter your password"	It is displaying Error: "Enter your password."	Pass
TC-06	Invalid email format	Username: userexample.com Password: Valid123	It should display Error: "Please enter a valid email address"	It is displaying Error: "Please enter a valid email address."	Pass
TC-07	UI elements alignment	Username: user@example.com Password: Valid123	Username, password fields, and buttons should align properly	Username and password fields aligned correctly	Pass

				with "Sign in" button.	
TC-08	"Forgot Password" link functionality	Click on "Forgot Password?"	Redirect to password recovery page	Redirected to password recovery page.	Pass
TC-09	Password visibility toggle	Username: user@example.com Password: Valid123 Toggle password visibility	Password visibility toggles between visible/hidden	Password visibility toggled between visible and hidden.	Pass
TC-10	Check login form on Chrome browser	Username: user@example.com Password: Valid123	Login form should work correctly on Chrome browser	Form loaded correctly and worked as expected on Chrome.	Pass
TC-11	Email field with too long input	Username: user1234567890123456789012345678901234567890@example.com Password: Valid123	It should display Error: "Email address is too long"	It is displaying Error: "Email address is too long."	Pass
TC-12	Invalid login with multiple failed attempts	Username: user@example.com Password: Wrong123 repeated 5 times	Account temporarily locked after 5 failed attempts	Account locked after 5 failed login attempts.	Pass

6. Design test cases for creating savings account in a bank (12 test cases)

ANS:

Test Case No	Test Case Name	Actual Input	Expected Output	Actual Output	Status
TC-01	Valid account creation	Name: John Doe Age: 30 Address: 123 Main St Phone: 9876543210 Email: john.doe@example.com	It should create account successfully.	It is creating account successfully and account number generated.	Pass
TC-02	Account creation with missing name	Name: (empty)	It should display Error: "Name is required."	It is displaying Error: "Name is required."	Pass
TC-03	Account creation with invalid age	Name: John Doe Age: 15 Address: 123 Main St Phone: 9876543210	It should display Error: "Age must be 18 or above."	It is displaying Error: "Age must be 18 or above."	Pass

		Email: john.doe@example.com			
TC-04	Account creation with missing address	Name: John Doe Age: 30 Address: (empty) Phone: 9876543210 Email: john.doe@example.com	It should display Error: "Address is required."	It is displaying Error: "Address is required."	Pass
TC-05	Account creation with invalid phone number	Name: John Doe Age: 30 Address: 123 Main St Phone: 98765abc10 Email: john.doe@example.com	It should display Error: "Invalid phone number."	It is displaying Error: "Invalid phone number."	Pass
TC-06	Account creation with invalid email format	Name: John Doe Age: 30 Address: 123 Main St Phone: 9876543210 Email: john.doe@com	It should display Error: "Please enter a valid email address."	It is displaying Error: "Please enter a valid email address."	Pass
TC-07	Account creation with duplicate phone number	Name: John Doe Age: 30 Address: 123 Main St Phone: 9876543210 Email: john.doe@example.com	It should display Error: "Phone number already exists."	It is displaying Error: "Phone number already exists."	Pass
TC-08	Account creation with missing email	Name: John Doe Age: 30 Address: 123 Main St Phone: 9876543210 Email: (empty)	It should display Error: "Email is required."	It is displaying Error: "Email is required."	Pass
TC-09	Account creation with valid input but underage	Name: Jane Doe Age: 17 Address: 456 Park Ave Phone: 9876543211 Email: jane.doe@example.com	It should display Error: "Age must be 18 or above."	It is displaying Error: "Age must be 18 or above."	Pass
TC-10	Account creation with valid details and bank branch	Name: John Smith Age: 25 Address: 123 Oak St Phone: 9876543212 Email: john.smith@example.com Branch: Main Branch	Account created with branch specified.	Account created with branch Main Branch.	Pass
TC-11	Account creation with password field (if applicable)	Name: John Doe Age: 30 Address: 123 Main St Phone: 9876543210 Email: john.doe@example.com Password: SecurePass123	Account created successfully with password.	Account created successfully with password setup.	Pass

TC-12	Account creation with minimum required fields	Name: John Doe Age: 30 Address: 123 Main St Phone: 9876543210	Account created successfully.	Account created successfully with basic details.	Pass
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7. Design test cases for MS-WORD application (12 test cases)

ANS:

Test Case ID	Test Case Objective	Input Data	Expected Result	Actual Result	Status
TC1	Check whether "Save As" functionality works	File: TestDocument.docx Save As: TestNewFile.docx	File should be saved with the new name	File saved as TestNewFile.docx	Pass
TC2	Check whether "Undo" button in Edit menu undoes action	Action: Type text "Hello World" Press Undo	Text should be undone	Text "Hello World" was undone	Pass
TC3	Check whether "Redo" button in Edit menu redoes action	Action: Type text "Hello World" Press Undo Press Redo	Text should be retyped as "Hello World" again	Text "Hello World" was retyped after Redo	Pass
TC4	Check whether "Bold" functionality works	Select text "Hello" Click Bold	Text "Hello" should become bold	Text "Hello" became bold	Pass
TC5	Check whether "Italic" functionality works	Select text "World" Click Italic	Text "World" should become italic	Text "World" became italic	Pass
TC6	Check whether the "Font Size" can be changed	Select text "Hello World" Set Font Size to 18	Font size should change to 18	Font size changed to 18	Pass
TC7	Check whether "Text Alignment" can be set to center	Select text "Hello World" Click "Center Alignment"	Text should align to center	Text aligned to center	Pass
TC8	Check whether the "Cut" option works in Edit menu	Select text "Hello World" Click Cut	Text should be cut and removed from the document	Text "Hello World" was cut and removed	Pass
TC9	Check whether the "Copy" option works in Edit menu	Select text "Hello World" Click Copy	Text should be copied to clipboard	Text "Hello World" copied to clipboard	Pass
TC10	Check whether "Paste" option	Copy text "Hello World"	Text should be pasted into the document	Text "Hello World" pasted into the document	Pass

	works after copying text	Paste in empty document			
TC11	Check whether the "Spell Check" option works	Type "Helo Wrold" Click Spell Check	Misspelled words should be highlighted and suggested	"Helo Wrold" was highlighted and suggested as "Hello World"	Pass
TC12	Check whether "Save" works after modifying the document	Modify the document content and click Save	Document should be saved with updated content	Document saved with the updated content	Pass

8. Design test cases for withdraw an amount from ATM and prepare defect report of it (3 test cases)


ANS:

TEST CASES:

Test Case No	Test Case Name	Actual Input	Expected Output	Actual Output	Status
TC_01	Successful Withdrawal	Insert card, enter PIN="1111", and select amount within account balance="1000"	Cash is dispensed, balance updated, receipt printed	Cash dispensed, balance updated, receipt printed	Pass
TC_02	Limited Denomination Issue	Insert card, enter PIN="1111", and select amount for withdrawal above 3000 ="5000"	Option to select or input desired amount above 3000	Limited to denominations up to 3000	Fail
TC_03	Exceed Daily Limit	Insert card, enter PIN="1111", select amount exceeding daily withdrawal limit ="25000"	Error message: "Daily limit exceeded"	Error message: "Daily limit exceeded"	Pass
TC_04	Insufficient Funds Error	Insert card, enter PIN="1111", select amount exceeding daily withdrawal limit ="50000"	Error message: "Insufficient funds"	Error message: "Insufficient funds"	Pass

DEFECT REPORT:

ID	Def_01
Project	ATM Simulator
Product	Cash Simulator ATM
Release Version	v1.0
Module	Home Page > Simulator
Detected Build Version	v1.1
Summary	Limited denomination options in cash withdrawal function, restricting cash withdrawal only till 3000.
Description	No option of withdrawing of amount excess of 3000
Steps to Replicate	1) Open the website

	2) Select our programs 3) Proceed to Digital Inclusion tools and select cash machine simulator (ATM) 4) Select language and skip to simulator 5) Enter the card 6) Select the account type 7) Go to Other functions and select cash withdrawal
Actual Results	It has displaying limited options of denominations in cash withdrawal option.
Expected Results	It should add more options in denominations in withdrawal function or it should take amount input from the user
Attachments	
Remarks	Causes inconvenience to the user in terms of limited cash withdrawal options.
Defect Severity	High
Defect Priority	High
Reported By	Aditya
Assigned To	Supriya
Status	Assigned

9. Write test plan whatsapp (consider chat functionality and write test plan)

ANS:

1	Test Plan Identifier	TP_11
2	Introduction	The purpose of this document is to create a test plan to check the chat functionality of WhatsApp. The purpose is to check all the functionality of the WhatsApp and to ease the use.
3	Test Items	Working with the document (send, receive, delete, Edit, Copy)
4	Features to be tested	1. Send Message 2. Receive Message 3. Delete Message 4. Edit Message 5. Copy Message 6. Paste Message 7. Send Image 8. Send Document 9. Chat Info
5	Approach	1. On the test Object: Functional and Non-functional

		2. According to the requirement: Positive and Negative 3. By degree of Preparedness: Intuitive Testing(ad hoc)		
6	Items Pass/Fail Criteria	1. The test items with high priority ends closing the result as Pass 2. The test coverage is Checked and sufficient where the criterion of selection is not less than 99% of the coverage of the requirements by test 3. The test report was complied and approved by team lead and customer		
7	Suspension criteria and resumption criteria	1. The appearance and entering the bug tracking system of blocking bug 2. The closing of the blocking bug in the bug tracking system		
8	Test Deliverables	1. Test Plan 2. Test Case Specification 3. Test Case 4. Test Summary Report		
9	Test Tasks	1. Writing Test Plan 2. Writing Test Case 3. Development of criteria for success of testing 4. Creating of testing and evaluation of the result 5. Creating test report		
10	Environmental Needs	1. WhatsApp Web 2. Computer 3. Internet 4. Window OS		
11	Responsibility	Functionality and responsibilities	Responsible	
		Send Message	Test Engineer 1	
		Receive Message	Test Engineer 1	
		Delete Message	Test Engineer 1	
		Edit Message	Test Engineer 1	
		Copy Message	Test Engineer 2	
		Paste Message	Test Engineer 2	
		Send Image	Test Engineer 3	
		Send Document	Test Engineer 3	
		Chart Info	Test Engineer 3	
12	Staffing and Training needs	To perform the task you must have the knowledge and skills: 1. Knowledge of WhatsApp Chart Application to be tested 2. Knowledge and ability to practically apply the test plan 3. Knowledge of all the test plan functional and non-functional		
13	Scheduling	The deadline of completion of all works along with delivery of the project is on 21/09/24 by 5:00pm		
14	Risks and contingency possible risks during testing	1. Limited Human resource available at the time of deadline 2. Changing of requirements for the product		
15	Approval Team	Lead Test Engineer 1 Test Engineer 2 Test Engineer 3 Test Engineer 4		

10. Write test plan for save functionality of MS-WORD application ?

ANS:

1	Test Plan Identifier	TP_12
2	Introduction	The purpose of this document is to create a test plan for testing the Save functionality of the MS-Word application. This ensures the document save operations work as expected, both for new and existing documents.
3	Test Items	Saving documents (New, Existing, Modified documents)
4	Features to be tested	<ol style="list-style-type: none"> 1. Save New Document 2. Save Existing Document 3. Save Document As 4. AutoSave Feature 5. Save in Different File Formats
5	Approach	<ol style="list-style-type: none"> 1. On the test Object: Functional and Non-functional 2. According to the requirement: Positive and Negative 3. By degree of Preparedness: Intuitive Testing(ad hoc)
6	Items Pass/Fail Criteria	<ol style="list-style-type: none"> 1. The test items with high priority ends closing the result as Pass 2. The test coverage is Checked and sufficient where the criterion of selection is not less than 99% of the coverage of the requirements by test 3. The test report was complied and approved by team lead and customer
7	Suspension criteria and resumption criteria	<ol style="list-style-type: none"> 1. The appearance and entering the bug tracking system of blocking bug 2. The closing of the blocking bug in the bug tracking system
8	Test Deliverables	<ol style="list-style-type: none"> 1. Test Plan 2. Test Case Specification 3. Test Case 4. Test Summary Report
9	Test Tasks	<ol style="list-style-type: none"> 1. Writing Test Plan 2. Writing Test Case 3. Development of criteria for success of testing 4. Creating of testing and evaluation of the result 5. Creating test report

10	Environmental Needs	1. MS Word application installed 2. Computer 3. Internet 4. Sufficient disk space 5. Window OS												
11	Responsibility		<table><tr><th>Functionality and responsibilities</th><th>Responsible</th></tr><tr><td>Save New Document</td><td>Test Engineer 1</td></tr><tr><td>Save Existing Document</td><td>Test Engineer 1</td></tr><tr><td>Save As functionality</td><td>Test Engineer 2</td></tr><tr><td>AutoSave & Save in Different Formats</td><td>Test Engineer 3</td></tr></table>	Functionality and responsibilities	Responsible	Save New Document	Test Engineer 1	Save Existing Document	Test Engineer 1	Save As functionality	Test Engineer 2	AutoSave & Save in Different Formats	Test Engineer 3	
Functionality and responsibilities	Responsible													
Save New Document	Test Engineer 1													
Save Existing Document	Test Engineer 1													
Save As functionality	Test Engineer 2													
AutoSave & Save in Different Formats	Test Engineer 3													
12	Staffing and Training needs	To perform the task you must have the knowledge and skills: 1. Knowledge of MS WORD Application to be tested 2. Knowledge and ability to practically apply the test plan 3. Knowledge of all the test plan functional and non-functional												
13	Scheduling	The deadline of completion of all works along with delivery of the project is on 21/09/24 by 5:00pm												
14	Risks and contingency possible risks during testing	1. Limited Human resource available at the time of deadline 2. Changing of requirements for the product												
15	Approval Team	Lead Test Engineer 1 Test Engineer 2 Test Engineer 3												