If Statements

- 1. Check if a number is positive.
- 2. Check if a number is greater than 100.
- 3. Check if a person is eligible to vote (age >= 18).
- 4. Check if a number is a multiple of 5.
- 5. Check if a given character is uppercase.
- 6. Check if a number is a two-digit number.
- 7. Check if a string contains the letter 'a'.
- 8. Check if a person is a senior citizen (age >= 60).
- 9. Check if a number is between 50 and 100.
- 10. Check if a person can enter a club (age >= 21 and has a membership card).
- 11. Check if a number is divisible by 3 or 7.
- 12. Check if a person is eligible for a bank loan (age > 25 and salary > 30,000).
- 13. Check if a user has admin access (role === "admin").
- 14. Check if a product is available in stock (stock > 0).
- 15. Check if a given year is a century year (ends with 00).
- 16. Check if a number is zero.
- 17. Check if a person is a teenager (age between 13 and 19).
- 18. Check if a number is less than 100 and even.
- 19. Check if a string is empty.
- 20. Check if a number is a perfect square.
- 21. Check if a number ends with the digit 5.
- 22. Check if a person is eligible for a discount (if age < 12 or > 60).
- 23. Check if a string starts with the letter "A".
- 24. Check if a number is a palindrome (same when reversed).
- 25. Check if a number is a prime number.
- 26. Check if a given string is a valid email address (contains '@' and '.').
- 27. Check if a person is eligible for a scholarship (marks > 85 and income < 5L).
- 28. Check if a mobile number is 10 digits long.
- 29. Check if a password is strong (length > 8 and contains a special character).
- 30. Check if a number is positive, and print "Positive" if true.
- 31. Check if a user has entered the correct password ("admin123").
- 32. Check if a given letter is lowercase.
- 33. Check if a number is greater than 500.
- 34. Check if a number is exactly 50.
- 35. Check if the first digit of a number is even.
- 36. Check if the last digit of a number is 0.
- 37. Check if a person can get a driving license (age >= 18 and has passed the test).
- 38. Check if the length of a string is greater than 10.
- 39. Check if the given temperature is above boiling point (100°C).
- 40. Check if a triangle is isosceles (two sides equal).
- 41. Check if a word is a palindrome ("madam" \rightarrow palindrome).
- 42. Check if an online order is eligible for free shipping (total price >= ₹500).
- 43. Check if a date falls on a weekend (Saturday or Sunday).
- 44. Check if a person is eligible for a cashback offer (purchase > ₹1000 and payment via credit card).
- 45. Check if a person qualifies for a credit card (age > 21 and credit score > 700).
- 46. Check if an ATM withdrawal amount is a multiple of ₹100.

- 47. Check if a person is eligible for a work-from-home policy (role = "developer" or "manager").
- 48. Check if an email address belongs to a specific domain (ends with "@gmail.com").
- 49. Check if a user can access premium content (logged in & has active subscription).

If-Else Statements:

- 1. Check if a number is even or odd.
- 2. Find the largest among three numbers.
- 3. Check if a number is positive, negative, or zero.
- 4. Determine if a year is a leap year or not.
- 5. Check if a given character is a vowel or consonant.
- 6. Find the grade based on marks:
 - o >=90 → A
 - \circ 80-89 \rightarrow B
 - o 70-79 → C
 - \circ 60-69 \rightarrow D
 - \circ <60 \rightarrow F
- 7. Check if a number is divisible by both 5 and 11.
- 8. Find the absolute value of a number.
- 9. Check if a triangle is valid based on the sum of its angles.
- 10. Calculate electricity bill based on units consumed:
 - o First 100 units: ₹5/unit
 - Next 100 units: ₹7/unit
 - o Above 200 units: ₹10/unit
- 11. Check if a person's salary is taxable based on slabs:
 - \circ <2.5 Lakh → No Tax
 - \circ 2.5L 5L \rightarrow 5% Tax
 - \circ 5L 10L \rightarrow 20% Tax
 - \circ >10L \rightarrow 30% Tax
- 12. Find the day of the week based on a number (1-7).
- 13. Check if a number is a three-digit number.
 - 14. Find the roots of a quadratic equation using the discriminant formula.
- 15. Check if a number is greater than 100 or not.
- 16. Check if a character is uppercase or lowercase.
- 17. Check if a number is a multiple of 3.
- 18. Check if a number is prime or not.
- 19. Find the smallest among three numbers.
- 20. Check if a given password is correct (compare input with "admin123").
- 21. Check if a triangle is scalene, isosceles, or equilateral.
- 22. Calculate the bonus for an employee based on experience:
 - \circ <5 years \rightarrow 5% bonus
 - 5-10 years \rightarrow 10% bonus
 - \circ >10 years \rightarrow 15% bonus
- 23. Check if a user is eligible for a scholarship (marks > 85 & income < 5L).
- 24. Determine if a website domain is valid (ends with .com or .org).
- 25. Check if a date is valid (day, month, year are correct).
- 26. Calculate the fare for a taxi ride based on distance travelled:

- o First 5 km: ₹10/km
- o Next 10 km: ₹8/km
- o Above 15 km: ₹6/km
- 27. Determine if a person qualifies for a credit card (age > 21 and credit score > 700).
- 28. Check if an email belongs to a specific company (@xyz.com).
- 29. Check if an online shopping cart qualifies for a discount (total > ₹2000).
- 30. Validate a password (should contain at least one number and one special character).
- 31. Check if a person is a child (age < 12), teenager (13-19), adult (20-59), or senior citizen (60+).
- 32. Check if a number is even, odd, or zero.
- 33. Check if a letter is a vowel, consonant, or a special character.
- 34. Check if a given number is one-digit, two-digit, or three-digit.
- 35. Determine the grade of a student based on marks:
 - o >=90 → A
 - o 80-89 → B
 - o 70-79 → C
 - o 60-69 → D
 - \circ <60 \rightarrow Fail
- 36. Check if a year is a leap year, century year, or neither.
- 37. Determine the type of triangle based on its sides (equilateral, isosceles, scalene).
- 38. Check if a person can apply for a job based on experience:
 - \circ <1 year \rightarrow Intern
 - 1-3 years → Junior Developer
 - 3-6 years → Senior Developer
 - o >6 years → Manager
- 39. Check the temperature category:
 - \circ <0°C → Freezing
 - \circ 0-10°C \rightarrow Cold
 - o 11-20°C → Cool
 - \circ 21-30°C \rightarrow Warm
 - o >30°C → Hot
- 40. Check a person's BMI category:
 - \circ <18.5 \rightarrow Underweight
 - \circ 18.5-24.9 \rightarrow Normal
 - $25-29.9 \rightarrow Overweight$
 - \circ 30+ \rightarrow Obese
- 41. Determine the type of bank account based on balance:

 - o 5000-50000 → Savings Account
 - >50000 → Premium Account
- 42. Check if a mobile number is valid based on length and starting digit.
- 43. Determine the shipping cost based on purchase amount:
 - <500 → ₹50 shipping fee
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 - o 500-1000 → ₹30 shipping fee
- 44. Check if a given date falls on a weekday or weekend.
- 45. Determine the type of internet plan based on speed:
 - o <5 Mbps → Basic Plan</p>
 - o 5-25 Mbps → Standard Plan

- 25-100 Mbps → Premium Plan
 >100 Mbps → Ultra Plan
 46. Calculate income tax based on salary:
 <2.5L → No tax
 - \circ 2.5L 5L \rightarrow 5% tax
 - $5L 10L \rightarrow 20\% \text{ tax}$
 - \circ >10L \rightarrow 30% tax
- 47. Decide movie ticket price based on age:
 - <12 years → ₹100
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 - o 12-60 years → ₹200
 - o >60 years → ₹150
- 48. Check if an entered password is too short, medium, or strong based on length and characters.
- 49. Determine train ticket price based on class:
 - o General → ₹50
 - o Sleeper → ₹150
 - o AC 3-Tier → ₹500
 - o AC 2-Tier → ₹1000
 - o First Class → ₹2000
- 50. Check if a number is divisible by 3, 5, or both.
- 51. Check if a number is less than 10, between 10-50, or greater than 50.
- 52. Determine if a number is single-digit, two-digit, or three-digit.
- 53. Determine the category of a person based on age:
 - \circ 0-12 \rightarrow Child
 - \circ 13-19 → Teenager
 - 20-35 \rightarrow Young Adult
 - o 36-50 → Middle Aged
 - o >50 → Senior
- 54. Classify a day of the week:
 - \circ 1 \rightarrow Monday
 - \circ 2 \rightarrow Tuesday
 - o ...
 - \circ 7 \rightarrow Sunday
 - o Invalid number if not 1-7
- 55. Determine if a student has passed or failed based on marks:
 - < 40 → Fail
 - \circ 40-59 \rightarrow Pass
 - o 60-79 → Good
 - \circ 80-100 \rightarrow Excellent
- 56. Find the largest among three numbers using else if.
- 57. Check if a character is a vowel, consonant, or special symbol.
- 58. Determine the type of fuel needed for a vehicle:
 - "Petrol" → Cars, Bikes
 - □ "Diesel" → Trucks, Buses
 - o "Electric" → EVs
 - "CNG" → Eco-friendly vehicles
- 59. Assign a user role based on a given string:
 - o "admin" → Full Access
 - "editor" → Can Edit Content

- o "viewer" → Read-Only Access
- o "guest" → Limited Access
- o "Invalid role" if none of the above
- 60. Determine the type of internet connection based on speed:
 - o <5 Mbps → Slow</p>
 - o 5-50 Mbps → Normal
 - 50-100 Mbps \rightarrow Fast
 - o >100 Mbps → Ultra Fast
- 61. Check the weather category based on temperature:
 - \circ <0°C → Freezing
 - o 0-15°C → Cold
 - \circ 16-30°C \rightarrow Warm
 - \circ 31-40°C \rightarrow Hot
 - \circ >40°C → Extreme Heat
- 62. Determine the type of shopping discount:
 - $<500 \rightarrow No Discount$
 - $500-1000 \rightarrow 5\%$ Discount
 - $1001-5000 \rightarrow 10\%$ Discount
 - $>5000 \rightarrow 20\%$ Discount
- 63. Check if an email belongs to a specific domain (@gmail.com, @yahoo.com, @outlook.com).
- 64. Calculate the bus fare based on distance travelled:
 - o <5 km → ₹10
 - o 5-20 km → ₹20
 - o 20-50 km → ₹50
 - o >50 km → ₹100
- 65. Check if a phone number is valid based on length and first digit (10 digits, starts with 6-9).
- 66. Determine which mobile plan is best based on data usage:
 - o <2GB → Basic Plan</p>
 - o 2-10GB → Standard Plan
 - o 10-50GB → Premium Plan
 - >50GB → Unlimited Plan
- 67. Find the best mode of transport based on distance:
 - \circ <1 km \rightarrow Walk
 - 1-5 km \rightarrow Bicycle
 - 5-20 km \rightarrow Bike
 - \circ 20-100 km \rightarrow Car
 - o >100 km → Train/Flight