**Smart Resume Data Extractor**

You are asked to build a small JavaScript program that processes raw resume text (copied from a plain .txt file). Since resumes are often messy (extra spaces, inconsistent capitalization, multiple lines, etc.), your program must **clean, validate, and extract key information** using **string functions and regular expressions**.

**Input (raw text string example):**

let resume = `

Name: jOhN doE

Email: john.doe@Example.com

Phone: 9876543210

Skills: HTML, CSS, JavaScript, Python, SQL

Extra: Contact me at john.altmail@example.org

#developer #coder

`;

**Expected Output (after processing):**

{

name: "John Doe", // Trimmed & formatted correctly

email: "john.doe@example.com", // Validated and lowercased

phone: "9876543210", // Validated mobile number

skills: ["HTML", "CSS", "JavaScript", "Python", "SQL"], // Clean split

hashtags: ["#developer", "#coder"], // Extracted using regex

emailCount: 2, // Count of email addresses found

wordCount: 15, // Count words in resume text

vowelCount: 24 // Count vowels in resume text

}

**Steps**

Students must implement **all the following sub-tasks** in one program:

1. **Name Formatting**

Extract the name, remove extra spaces (trim() + replace()),

Capitalize the first letter of each word (charAt() + slice()).

2. **Email Validation & Extraction**

Use regex to find *all* email addresses.

Store the first one as the primary email.

Count how many emails were found.

3. **Mobile Number Validation**

Validate that the phone number starts with 6,7,8,9 and has exactly 10 digits. If invalid, output "Invalid phone number".

4. **Skills Processing**

Extract skills from the line.

Split by comma, trim spaces, and return as an array.

5. **Hashtag Extraction**

Extract all hashtags (e.g., #developer, #coder).

6. **Word Count**

Count total number of words in the resume.

7. **Vowel Count**

Count total vowels (a, e, i, o, u).

**The following code contains function names + comments only, so you have to fill in the logic yourself (using what you have learned in Practical 6 Part 1 & 2).**

**// Final Project: Smart Resume Data Extractor**

let resume = `

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#developer #coder

`;

// 1. Format Name

function formatName(rawName) {

// TODO: Trim spaces, split into words, capitalize each word properly return formattedName;

}

// 2. Extract and Validate Emails

function extractEmails(text) {

// TODO: Use regex to find all emails

// Return array of emails

}

// 3. Validate Mobile Number

function validateMobile(number) {

// TODO: Check if starts with 6/7/8/9 and has exactly 10 digits // Return valid number or "Invalid phone number"

}

// 4. Process Skills

function processSkills(rawSkills) {

// TODO: Split by comma, trim each skill, return array }

// 5. Extract Hashtags

function extractHashtags(text) {

// TODO: Use regex to find all hashtags (#...)

// Return array of hashtags

}

// 6. Word Count

function countWords(text) {

// TODO: Split by spaces, filter empty items, return count }

// 7. Vowel Count

function countVowels(text) {

// TODO: Loop through text and count vowels (a, e, i, o, u) }

// -------------------------

// Main Program

// -------------------------

function processResume(resumeText) { let output = {};

// Extract Name

// (Hint: use regex or string search for "Name:") // output.name = formatName(...);

// Extract Emails

// let emails = extractEmails(resumeText); // output.email = emails[0]; // Primary email // output.emailCount = emails.length;

// Extract Phone

// (Hint: find line with "Phone:")

// output.phone = validateMobile(...);

// Extract Skills

// (Hint: find line with "Skills:")

// output.skills = processSkills(...);

// Extract Hashtags

// output.hashtags = extractHashtags(resumeText);

// Count Words

// output.wordCount = countWords(resumeText);

// Count Vowels

// output.vowelCount = countVowels(resumeText);

return output;

}

// Run Program

console.log(processResume(resume));

**Test Input 1 (Normal, Clean Example)**

let resume1 = `

Name: jOhN doE

Email: john.doe@Example.com

Phone: 9876543210

Skills: HTML, CSS, JavaScript, Python, SQL

Extra: Contact me at john.altmail@example.org

#developer #coder

`;

Expected: Properly formatted name, 2 emails, valid phone, 5 skills, 2 hashtags, correct word & vowel count.

**Test Input 2 (Messy Spaces & Invalid Phone)**

let resume2 = `

Name: aLIcE SMiTH

Email: alice.smith@work.com

Phone: 1234567890

Skills: C, C++ ,Java, JavaScript

Extra Info: Reach me also at alice.backup@mail.org

#programmer #techie

`;

Expected:

● Name → Alice Smith

● 2 emails extracted

● Phone → "Invalid phone number" (since starts with 1)

● Skills → ["C", "C++", "Java", "JavaScript"]

● Hashtags → ["#programmer", "#techie"]

**Test Input 3 (Multiple Emails & Extra Hashtags)**

let resume3 = `

Name: ROBERT broWn

Email: robert\_brown@example.com

Phone: 8765432109

Skills: PHP,MySQL, HTML ,CSS, JavaScript

Other: robert.personal@domain.org robert.dev@github.com #fullstack #developer #javascript #100DaysOfCode

`;

Expected:

● Name → Robert Brown

● 3 emails extracted

● Valid phone

● Skills → ["PHP", "MySQL", "HTML", "CSS", "JavaScript"] ● 4 hashtags extracted

**Test Input 4 (Extra Noise, Mixed Case, Extra Spaces)** let resume4 = `

Random Text: Ignore this line

Name: keVin o'CONNOR

Email: kevin.oConnor@Mail.com

Phone: 7894561230

Skills: Python, Machine Learning, Data Science , AI

Extra Notes: You can also contact: kevin.backup123@mail.org #AI #MachineLearning #DataScience #coder

`;

Expected:

● Name → Kevin O'Connor (handle apostrophe properly) ● 2 emails extracted

● Valid phone

● Skills → ["Python", "Machine Learning", "Data Science", "AI"] ● Hashtags → ["#AI", "#MachineLearning", "#DataScience", "#coder"]