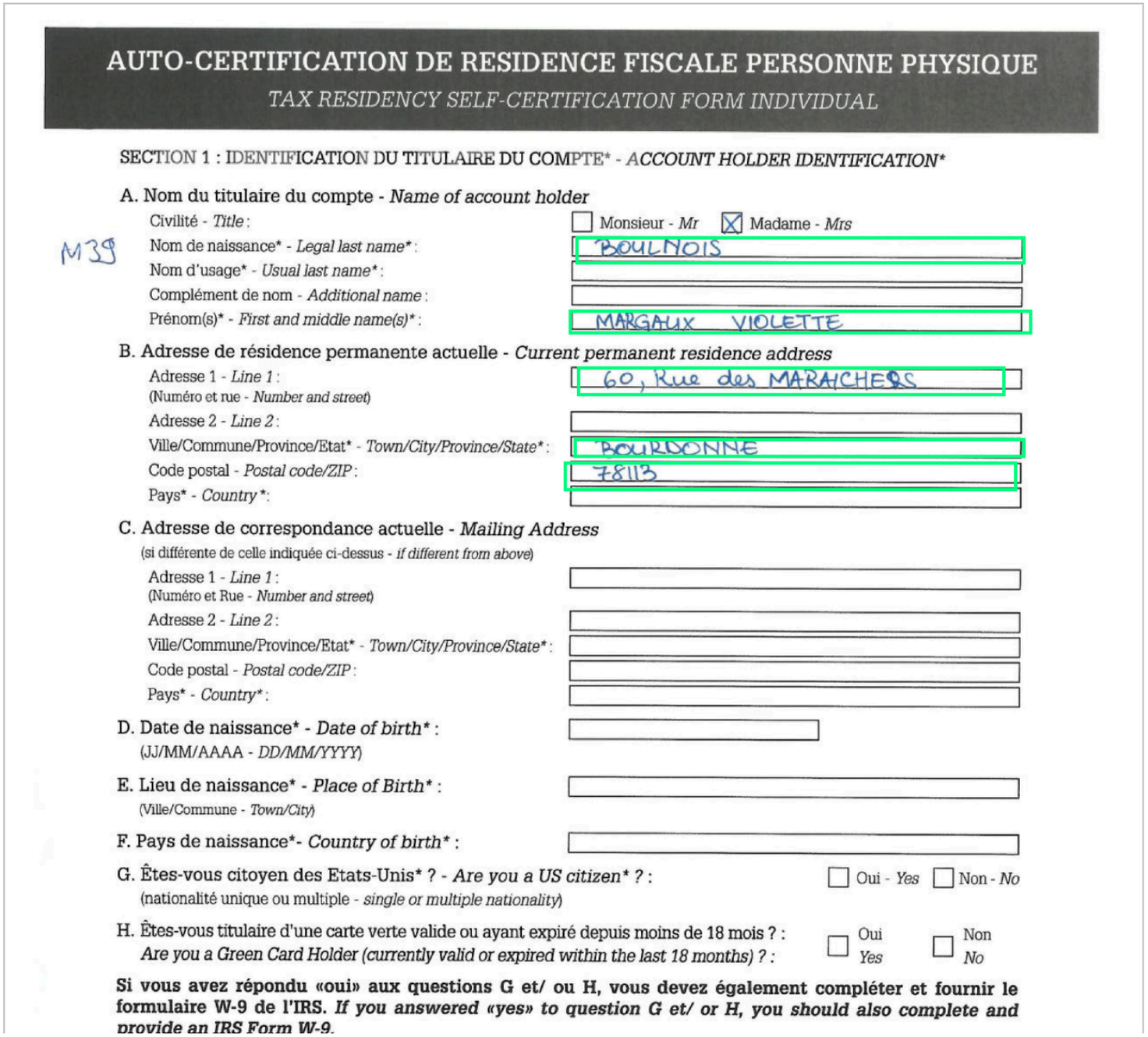
Merak

Catalyst Extension Closure
May, 2019
Private and Confidential

Vibhor Kalra
vibhor@merak.ai
+91-9999367504

Catalyst Demo Day



AUTO-CERTIFICATION DE RESIDENCE FISCALE PERSONNE PHYSIQUE

TAX RESIDENCY SELF-CERTIFICATION FORM INDIVIDUAL

SECTION 1 : IDENTIFICATION DU TITULAIRE DU COMPTE* - *ACCOUNT HOLDER IDENTIFICATION**

A. Nom du titulaire du compte - *Name of account holder*

Civilité - *Title* : ☐ Monsieur - *Mr* ☒ Madame - *Mrs*

M39

Nom de naissance* - *Legal last name** : BOULNOIS

Nom d'usage* - *Usual last name** :

Complément de nom - *Additional name* :

Prénom(s)* - *First and middle name(s)** : MARGAUX VIOLETTE

B. Adresse de résidence permanente actuelle - *Current permanent residence address*

Adresse 1 - *Line 1* : 60, Rue des MARAICHERS
(Numéro et rue - *Number and street*)

Adresse 2 - *Line 2* :

Ville/Commune/Province/Etat* - *Town/City/Province/State** : BOURBONNE

Code postal - *Postal code/ZIP* : 78113

Pays* - *Country** :

C. Adresse de correspondance actuelle - *Mailing Address*
(si différente de celle indiquée ci-dessus - *if different from above*)

Adresse 1 - *Line 1* :
(Numéro et Rue - *Number and street*)

Adresse 2 - *Line 2* :

Ville/Commune/Province/Etat* - *Town/City/Province/State** :

Code postal - *Postal code/ZIP* :

Pays* - *Country** :

D. Date de naissance* - *Date of birth** :
(JJ/MM/AAAA - *DD/MM/YYYY*)

E. Lieu de naissance* - *Place of Birth** :
(Ville/Commune - *Town/City*)

F. Pays de naissance*- *Country of birth** :

G. Êtes-vous citoyen des Etats-Unis* ? - *Are you a US citizen* ?* : ☐ Oui - *Yes* ☐ Non - *No*
(nationalité unique ou multiple - *single or multiple nationality*)

H. Êtes-vous titulaire d'une carte verte valide ou ayant expiré depuis moins de 18 mois ? :
Are you a Green Card Holder (currently valid or expired within the last 18 months) ? : ☐ Oui *Yes* ☐ Non *No*

Si vous avez répondu «oui» aux questions G et/ ou H, vous devez également compléter et fournir le formulaire W-9 de l'IRS. *If you answered «yes» to question G et/ or H, you should also complete and provide an IRS Form W-9.*

Field Name : Last — Field Type : Name

Boulnois

Ground Truth
Boulnois

Accuracy: 1

Field Name : First — Field Type : Name

Margaux Violette

Ground Truth
Margaux Violette

Accuracy: 1

Field Name : Address — Field Type : Address

60, Rue Des Maraichers

Ground Truth
60, Rue Des Maraichers

Accuracy: 0.95

Field Name : Town — Field Type : Town

Bourbonne

Extension Mandate

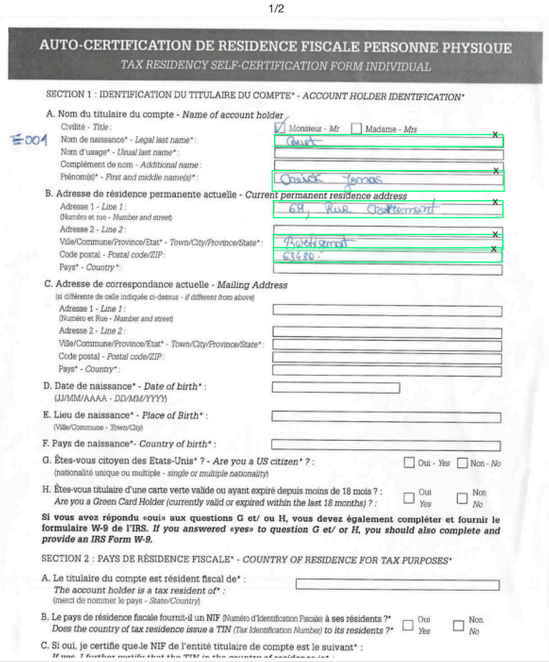
Vinayaka was conceived during the Catalyst program. Still at a nascent stage, a product roadmap was created for the extension.

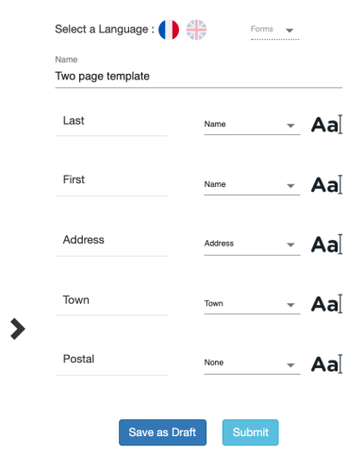
Challenges mentioned below were included as a part of the mandate to ensure that the system is production-ready.

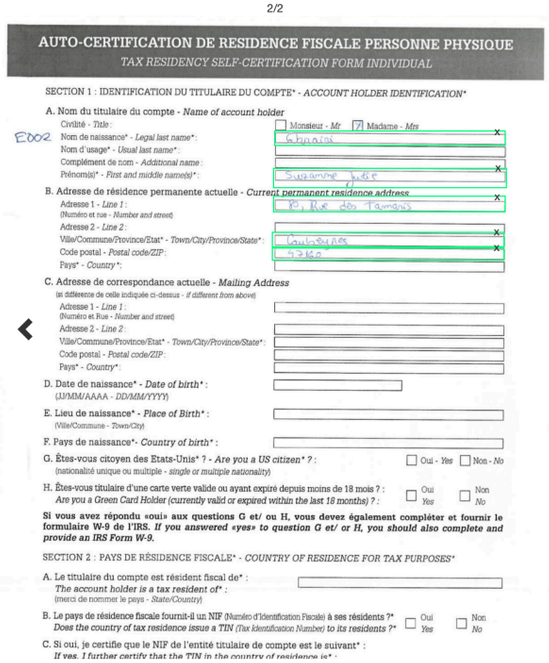
1. **Multi-page template and scanning support**
2. **Improving recognition accuracies**
3. **Skew detection and correction**
4. **Checkbox recognition**
5. **Field localization**

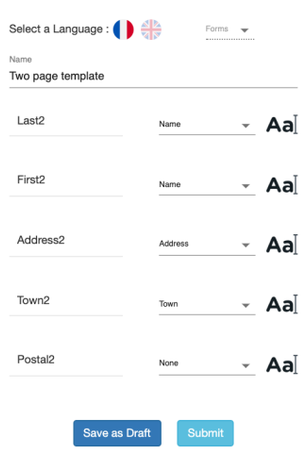
Multi-page template and scanning support

- ✓ **Single Page Template - Single Page Scan**
- ✓ **Single Page Template - Bulk Scanning**
- ✓ **Multi-page Template - Single Document Scan**
- ✗ **Multi-page Template - Single Document Scan**
  Document classification and a sophisticated reconciliation tool needs to be developed

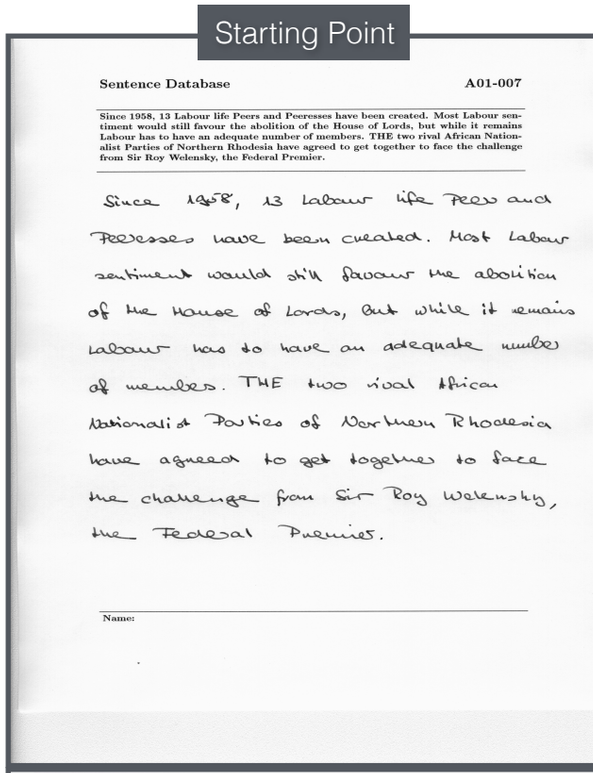


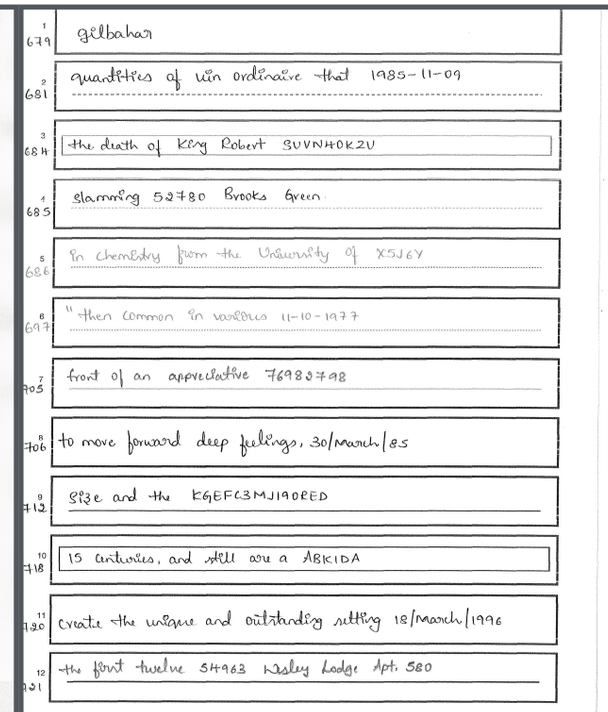


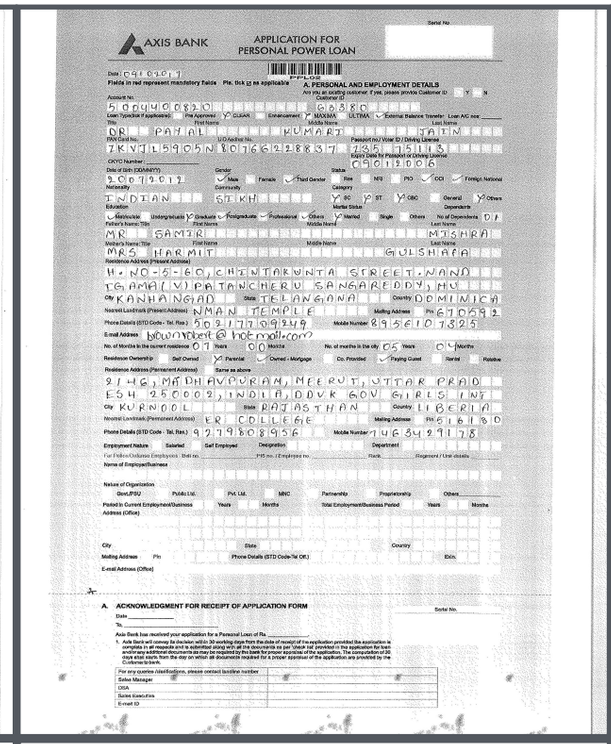


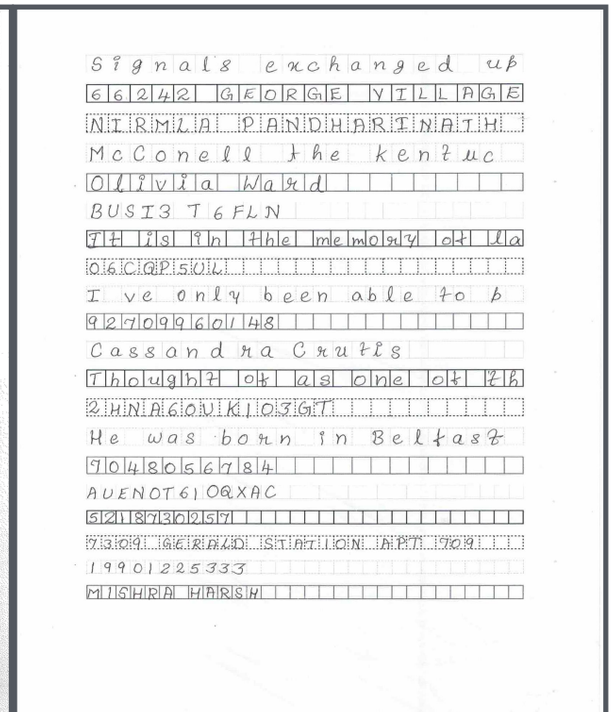


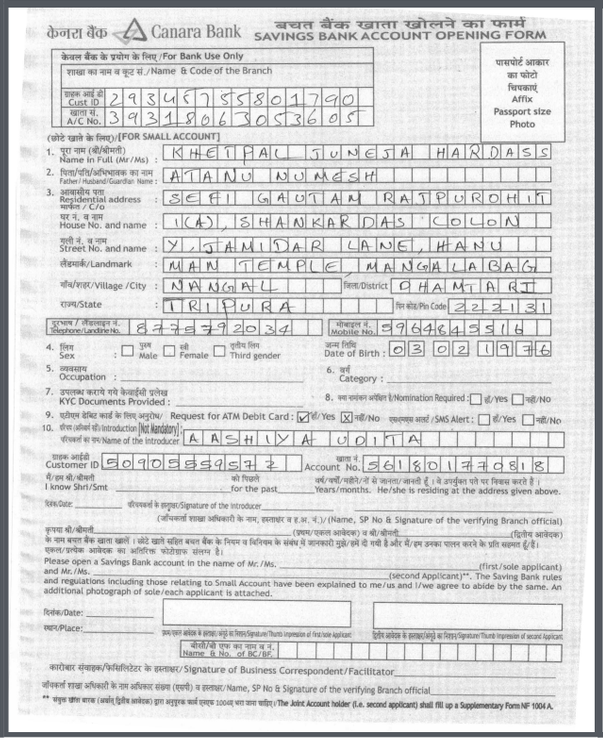
Improving recognition accuracies

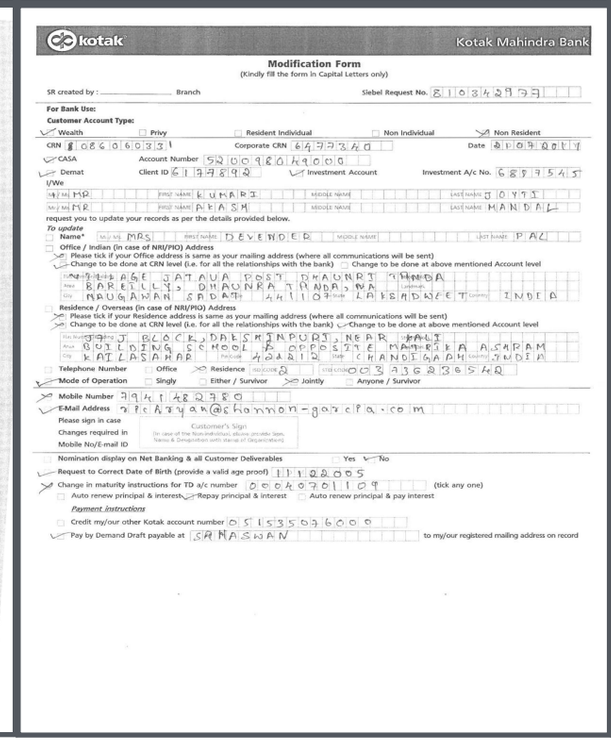


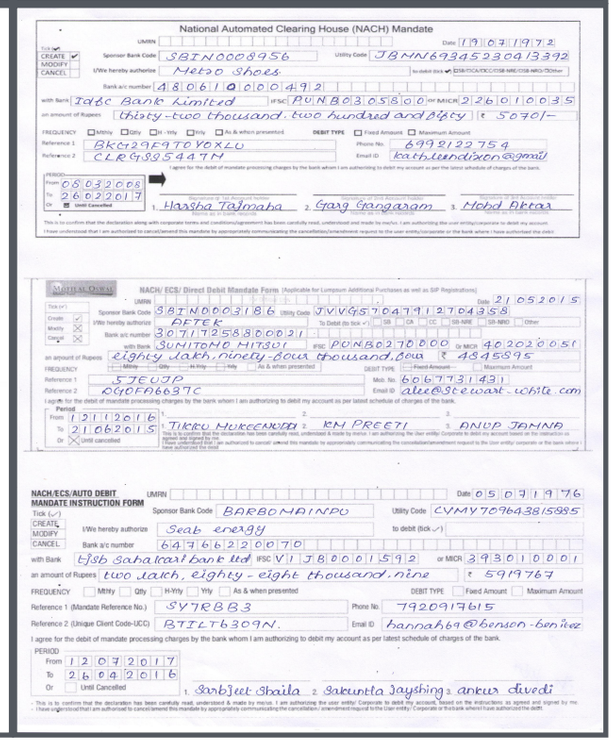






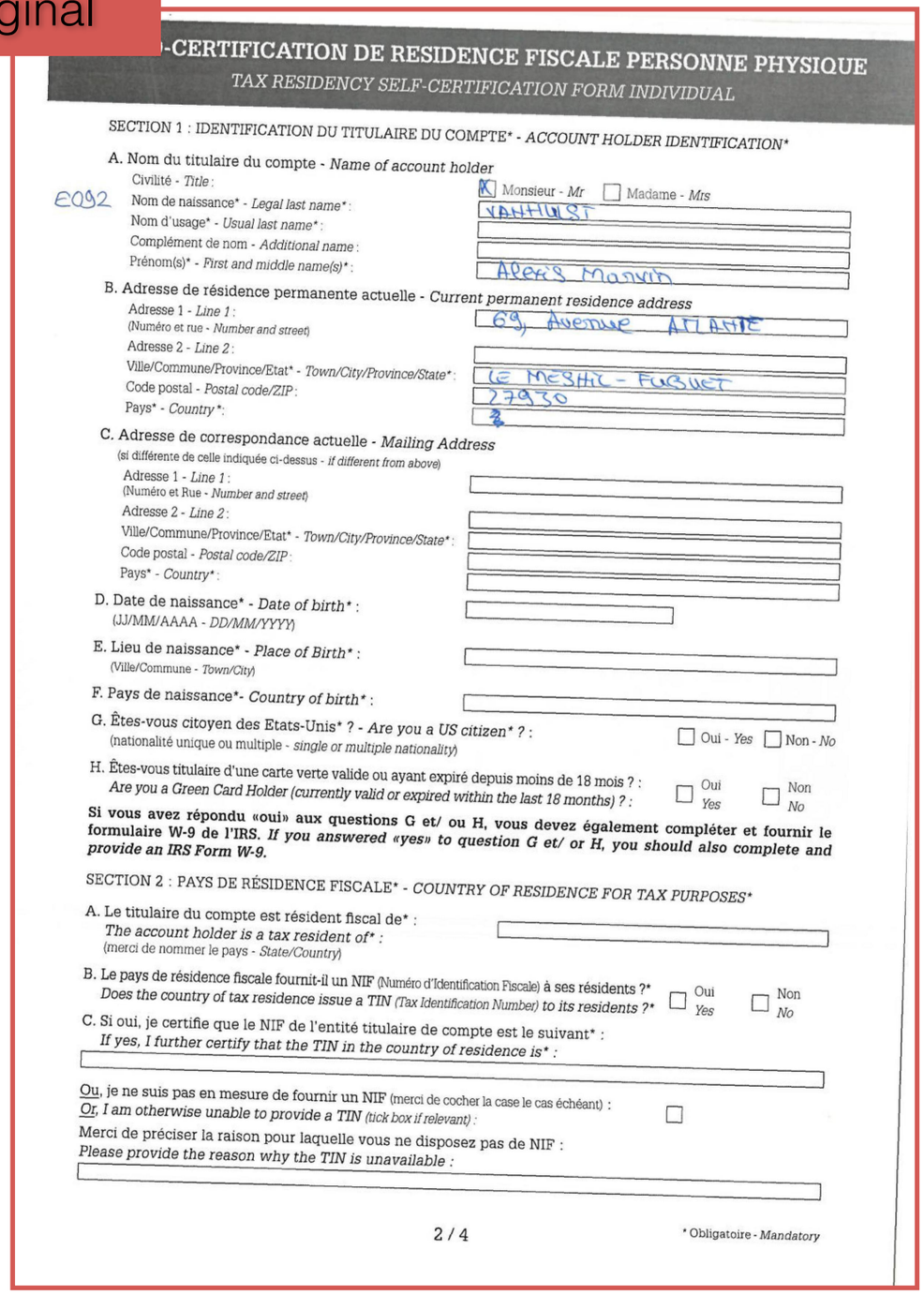






Skew detection and correction

Original



-CERTIFICATION DE RESIDENCE FISCALE PERSONNE PHYSIQUE

TAX RESIDENCY SELF-CERTIFICATION FORM INDIVIDUAL

SECTION 1 : IDENTIFICATION DU TITULAIRE DU COMPTE* - *ACCOUNT HOLDER IDENTIFICATION**

A. Nom du titulaire du compte - *Name of account holder*

Civilité - *Title* : ☒ Monsieur - *Mr* ☐ Madame - *Mrs*

E092 Nom de naissance* - *Legal last name** : VANHULST

Nom d'usage* - *Usual last name** :

Complément de nom - *Additional name* :

Prénom(s)* - *First and middle name(s)** : Alexis Marvin

B. Adresse de résidence permanente actuelle - *Current permanent residence address*

Adresse 1 - *Line 1* : (Numéro et rue - *Number and street*) 69, Avenue ATLANTE

Adresse 2 - *Line 2* :

Ville/Commune/Province/Etat* - *Town/City/Province/State** : LE MESNIL - FUGUET

Code postal - *Postal code/ZIP* : 27930

Pays* - *Country** : 3

C. Adresse de correspondance actuelle - *Mailing Address*

(si différente de celle indiquée ci-dessus - *if different from above*)

Adresse 1 - *Line 1* : (Numéro et Rue - *Number and street*)

Adresse 2 - *Line 2* :

Ville/Commune/Province/Etat* - *Town/City/Province/State** :

Code postal - *Postal code/ZIP* :

Pays* - *Country** :

D. Date de naissance* - *Date of birth** : (JJ/MM/AAAA - *DD/MM/YYYY*)

E. Lieu de naissance* - *Place of Birth** : (Ville/Commune - *Town/City*)

F. Pays de naissance*- *Country of birth** :

G. Êtes-vous citoyen des Etats-Unis* ? - *Are you a US citizen* ?* : (nationalité unique ou multiple - *single or multiple nationality*) ☐ Oui - *Yes* ☐ Non - *No*

H. Êtes-vous titulaire d'une carte verte valide ou ayant expiré depuis moins de 18 mois ? : *Are you a Green Card Holder (currently valid or expired within the last 18 months) ?* : ☐ Oui *Yes* ☐ Non *No*

Si vous avez répondu «oui» aux questions G et/ ou H, vous devez également compléter et fournir le formulaire W-9 de l'IRS. *If you answered «yes» to question G et/ or H, you should also complete and provide an IRS Form W-9.*

SECTION 2 : PAYS DE RÉSIDENCE FISCALE* - *COUNTRY OF RESIDENCE FOR TAX PURPOSES**

A. Le titulaire du compte est résident fiscal de* : *The account holder is a tax resident of* :* (merci de nommer le pays - *State/Country*)

B. Le pays de résidence fiscale fournit-il un NIF (Numéro d'Identification Fiscale) à ses résidents ?* *Does the country of tax residence issue a TIN (Tax Identification Number) to its residents ?** ☐ Oui *Yes* ☐ Non *No*

C. Si oui, je certifie que le NIF de l'entité titulaire de compte est le suivant* : *If yes, I further certify that the TIN in the country of residence is* :*

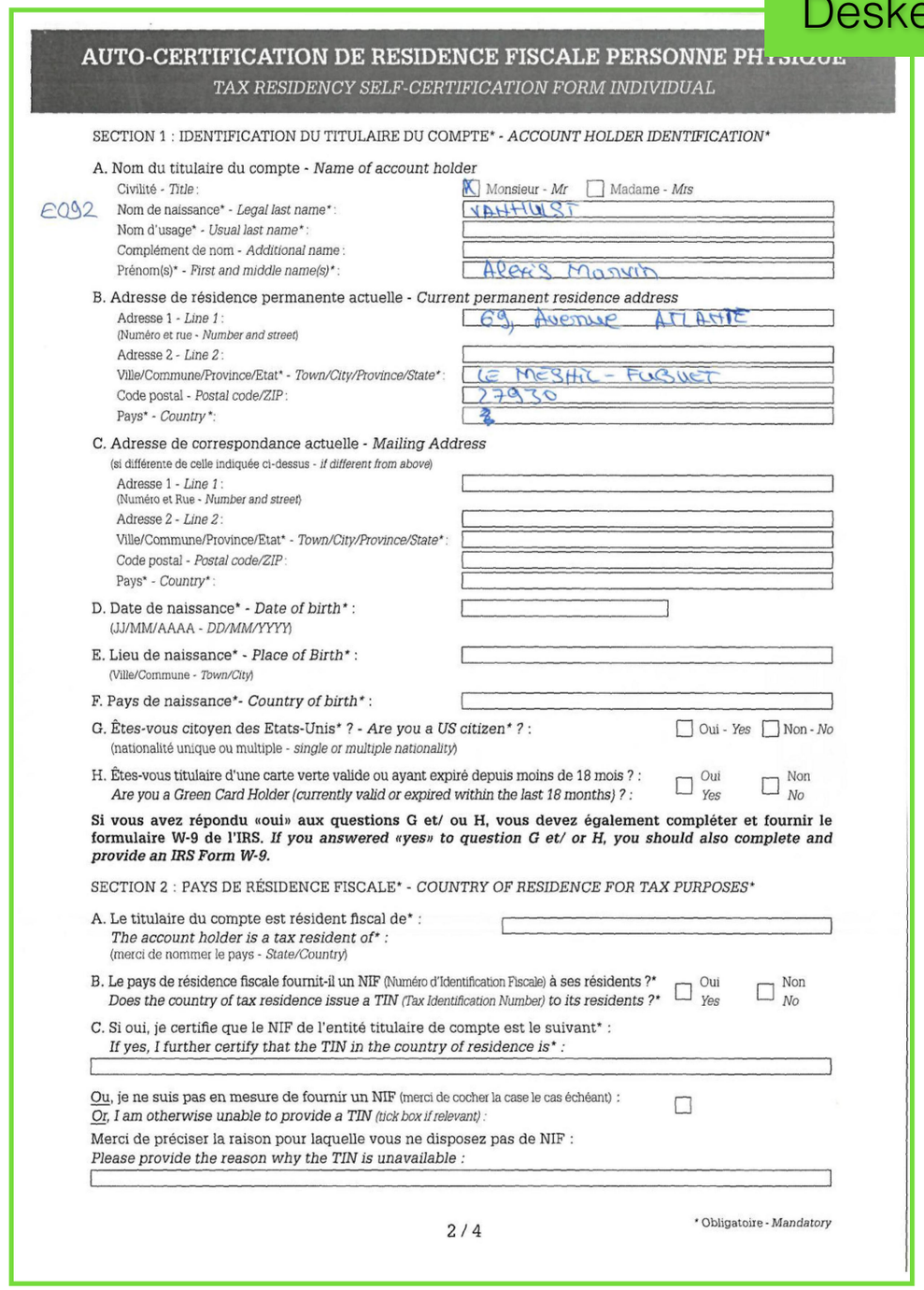
Ou, je ne suis pas en mesure de fournir un NIF (merci de cocher la case le cas échéant) : *Or, I am otherwise unable to provide a TIN (tick box if relevant)* : ☐

Merci de préciser la raison pour laquelle vous ne disposez pas de NIF : *Please provide the reason why the TIN is unavailable* :

2 / 4

* Obligatoire - *Mandatory*

Deskewed



AUTO-CERTIFICATION DE RESIDENCE FISCALE PERSONNE PHYSIQUE

TAX RESIDENCY SELF-CERTIFICATION FORM INDIVIDUAL

SECTION 1 : IDENTIFICATION DU TITULAIRE DU COMPTE* - *ACCOUNT HOLDER IDENTIFICATION**

A. Nom du titulaire du compte - *Name of account holder*

Civilité - *Title* : ☒ Monsieur - *Mr* ☐ Madame - *Mrs*

E092 Nom de naissance* - *Legal last name** : VANHULST

Nom d'usage* - *Usual last name** :

Complément de nom - *Additional name* :

Prénom(s)* - *First and middle name(s)** : Alexis Marvin

B. Adresse de résidence permanente actuelle - *Current permanent residence address*

Adresse 1 - *Line 1* : (Numéro et rue - *Number and street*) 69, Avenue ATLANTE

Adresse 2 - *Line 2* :

Ville/Commune/Province/Etat* - *Town/City/Province/State** : LE MESNIL - FUGUET

Code postal - *Postal code/ZIP* : 27930

Pays* - *Country** : 3

C. Adresse de correspondance actuelle - *Mailing Address*

(si différente de celle indiquée ci-dessus - *if different from above*)

Adresse 1 - *Line 1* : (Numéro et Rue - *Number and street*)

Adresse 2 - *Line 2* :

Ville/Commune/Province/Etat* - *Town/City/Province/State** :

Code postal - *Postal code/ZIP* :

Pays* - *Country** :

D. Date de naissance* - *Date of birth** : (JJ/MM/AAAA - *DD/MM/YYYY*)

E. Lieu de naissance* - *Place of Birth** : (Ville/Commune - *Town/City*)

F. Pays de naissance*- *Country of birth** :

G. Êtes-vous citoyen des Etats-Unis* ? - *Are you a US citizen* ?* : (nationalité unique ou multiple - *single or multiple nationality*) ☐ Oui - *Yes* ☐ Non - *No*

H. Êtes-vous titulaire d'une carte verte valide ou ayant expiré depuis moins de 18 mois ? : *Are you a Green Card Holder (currently valid or expired within the last 18 months) ?* : ☐ Oui *Yes* ☐ Non *No*

Si vous avez répondu «oui» aux questions G et/ ou H, vous devez également compléter et fournir le formulaire W-9 de l'IRS. *If you answered «yes» to question G et/ or H, you should also complete and provide an IRS Form W-9.*

SECTION 2 : PAYS DE RÉSIDENCE FISCALE* - *COUNTRY OF RESIDENCE FOR TAX PURPOSES**

A. Le titulaire du compte est résident fiscal de* : *The account holder is a tax resident of* :* (merci de nommer le pays - *State/Country*)

B. Le pays de résidence fiscale fournit-il un NIF (Numéro d'Identification Fiscale) à ses résidents ?* *Does the country of tax residence issue a TIN (Tax Identification Number) to its residents ?** ☐ Oui *Yes* ☐ Non *No*

C. Si oui, je certifie que le NIF de l'entité titulaire de compte est le suivant* : *If yes, I further certify that the TIN in the country of residence is* :*

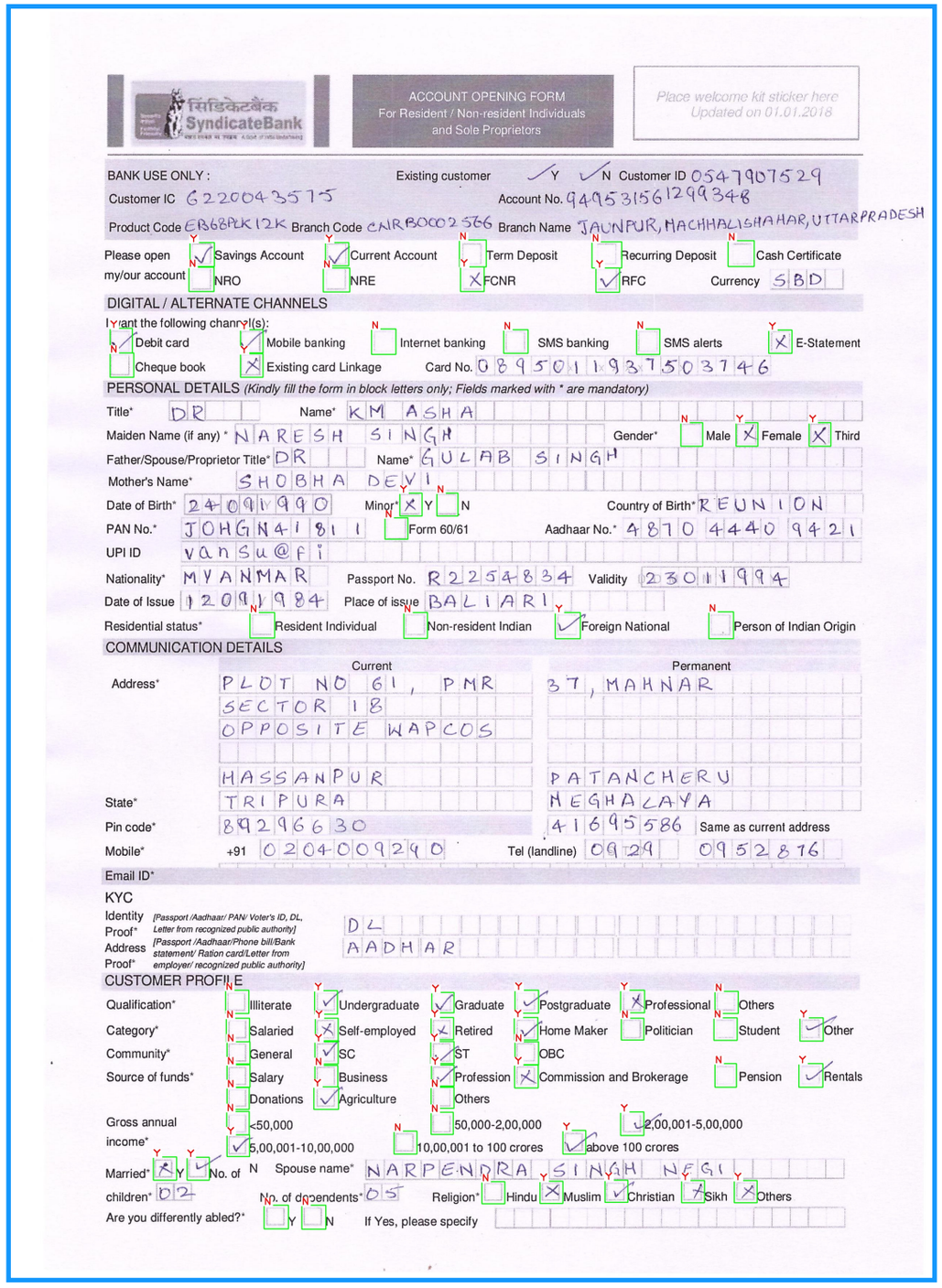
Ou, je ne suis pas en mesure de fournir un NIF (merci de cocher la case le cas échéant) : *Or, I am otherwise unable to provide a TIN (tick box if relevant)* : ☐

Merci de préciser la raison pour laquelle vous ne disposez pas de NIF : *Please provide the reason why the TIN is unavailable* :

2 / 4

* Obligatoire - *Mandatory*

Checkbox Recognition



99.99%
Accuracy

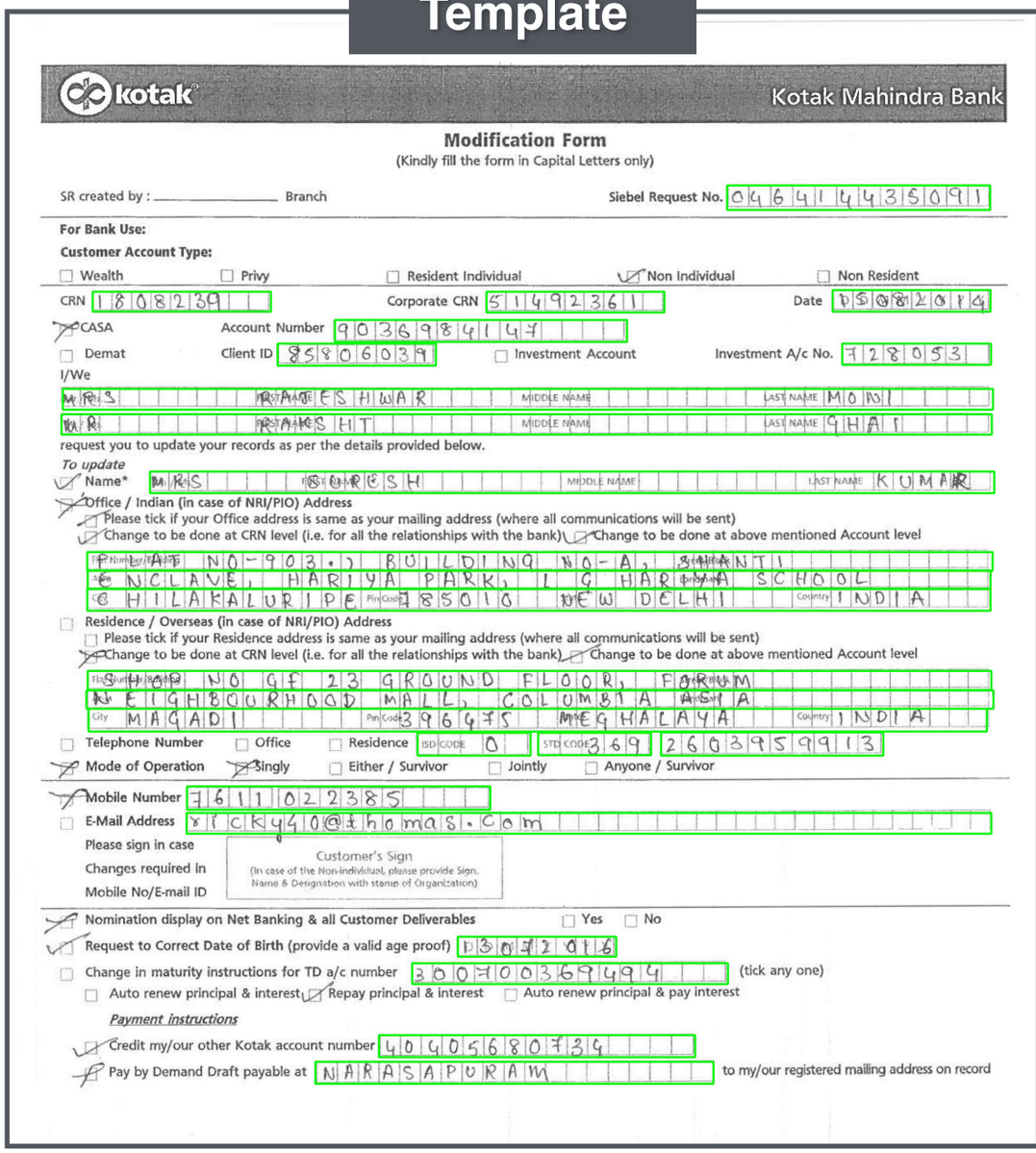
<1sec
Prediction Time

Single Select
Multi Select

Checkbox Group Support

Field Localization

Template



kotak — Kotak Mahindra Bank

Modification Form
(Kindly fill the form in Capital Letters only)

SR created by : _____ Branch — Siebel Request No. 04641443509 1

For Bank Use:
Customer Account Type:
☐ Wealth ☐ Privy ☐ Resident Individual ☑ Non Individual ☐ Non Resident

CRN 18082389 — Corporate CRN 51492361 — Date 05/08/2014
☑ CASA — Account Number 90369841 47
☐ Demat — Client ID 85806039 — ☐ Investment Account — Investment A/c No. 728053

I/We
MRS PRATEESHWAR MIDDLE NAME LAST NAME MOOI
MR PRAMESHT MIDDLE NAME LAST NAME GHAI
request you to update your records as per the details provided below.

To update
☑ Name* MRS RAMESH MIDDLE NAME LAST NAME KUMAR
☑ Office / Indian (in case of NRI/PIO) Address
☐ Please tick if your Office address is same as your mailing address (where all communications will be sent)
☑ Change to be done at CRN level (i.e. for all the relationships with the bank) ☐ Change to be done at above mentioned Account level

Flat Number/Building NO-903.1 BUILDING NO-A, SHANTI
Street/Lane NCLAVE, HARIYA PARK, L G HARIYA SCHOOL
City CHILAKALUR PE Pin Code 85010 State NEW DELHI Country INDIA

☐ Residence / Overseas (in case of NRI/PIO) Address
☐ Please tick if your Residence address is same as your mailing address (where all communications will be sent)
☑ Change to be done at CRN level (i.e. for all the relationships with the bank) ☑ Change to be done at above mentioned Account level

Flat Number/Building NO GF 23 GROUND FLOOR, FORUM
Street/Lane NEIGHBOURHOOD MALL, COLUMBIA
City MAGADI Pin Code 396675 State MEGHALAYA Country INDIA

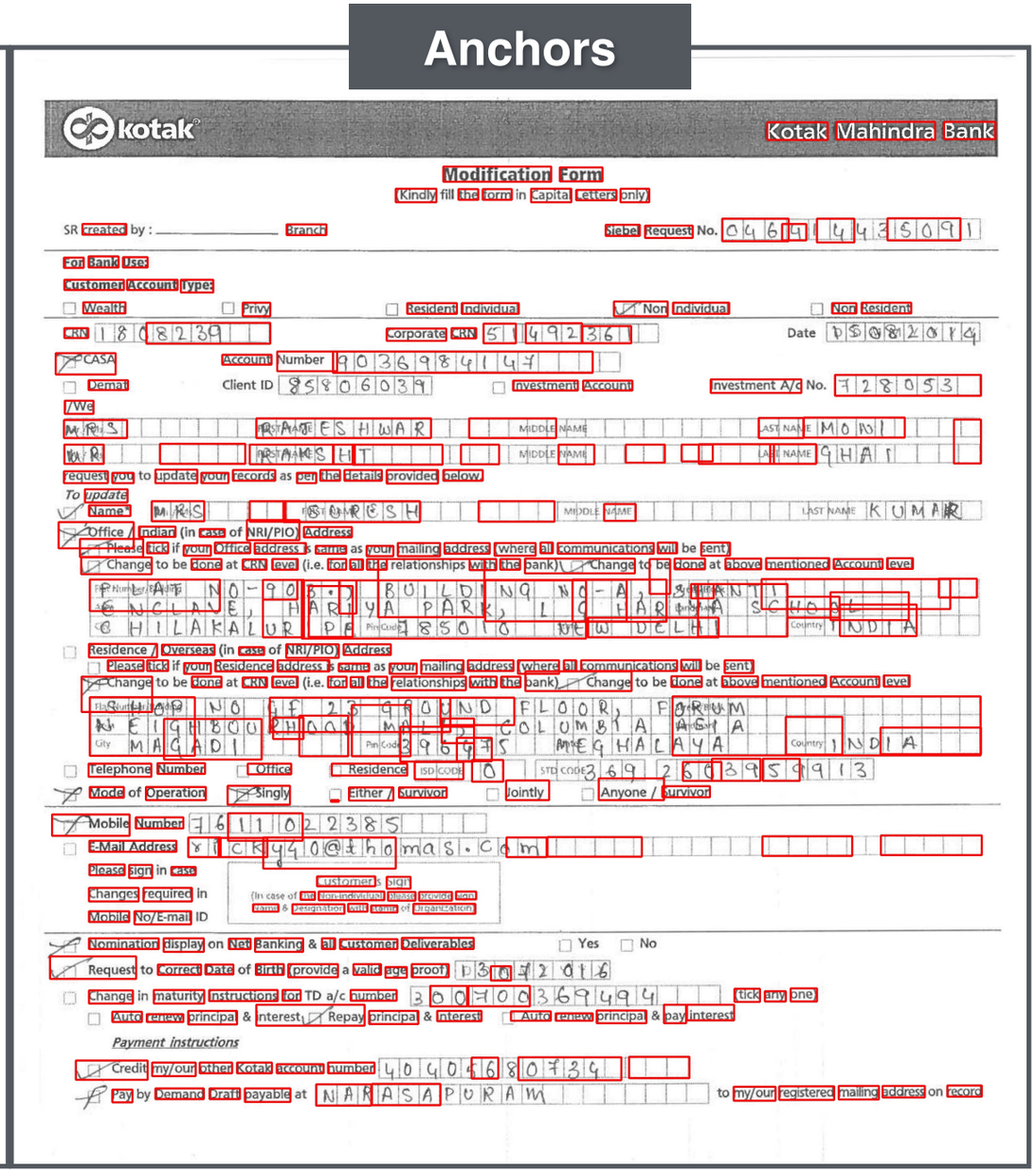
☐ Telephone Number ☐ Office ☐ Residence ISD CODE 0 STD CODE 369 2603959913
☑ Mode of Operation ☑ Singly ☐ Either / Survivor ☐ Jointly ☐ Anyone / Survivor

☑ Mobile Number 7611022385
☐ E-Mail Address rickyy40@thomas.com
Please sign in case Changes required in Mobile No/E-mail ID — Customer's Sign (In case of the Non-individual, please provide Sign, Name & Designation with stamp of Organization)

☑ Nomination display on Net Banking & all Customer Deliverables ☐ Yes ☐ No
☑ Request to Correct Date of Birth (provide a valid age proof) 03/07/2016
☐ Change in maturity instructions for TD a/c number 30070036949 4 (tick any one)
☐ Auto renew principal & interest ☑ Repay principal & interest ☐ Auto renew principal & pay interest

Payment instructions
☑ Credit my/our other Kotak account number 40405680739
☑ Pay by Demand Draft payable at NARASAPURAM to my/our registered mailing address on record

Anchors



kotak — Kotak Mahindra Bank

Modification Form
(Kindly fill the form in Capital Letters only)

SR created by : _____ Branch — Siebel Request No. 04641443509 1

For Bank Use:
Customer Account Type:
☐ Wealth ☐ Privy ☐ Resident Individual ☑ Non Individual ☐ Non Resident

CRN 18082389 — Corporate CRN 51492361 — Date 05/08/2014
☑ CASA — Account Number 90369841 47
☐ Demat — Client ID 85806039 — ☐ Investment Account — Investment A/c No. 728053

I/We
MRS PRATEESHWAR MIDDLE NAME LAST NAME MOOI
MR PRAMESHT MIDDLE NAME LAST NAME GHAI
request you to update your records as per the details provided below.

To update
☑ Name* MRS RAMESH MIDDLE NAME LAST NAME KUMAR
☑ Office / Indian (in case of NRI/PIO) Address
☐ Please tick if your Office address is same as your mailing address (where all communications will be sent)
☑ Change to be done at CRN level (i.e. for all the relationships with the bank) ☑ Change to be done at above mentioned Account level

Flat Number/Building NO-903.1 BUILDING NO-A, SHANTI
Street/Lane NCLAVE, HARIYA PARK, L G HARIYA SCHOOL
City CHILAKALUR PE Pin Code 85010 State NEW DELHI Country INDIA

☐ Residence / Overseas (in case of NRI/PIO) Address
☐ Please tick if your Residence address is same as your mailing address (where all communications will be sent)
☑ Change to be done at CRN level (i.e. for all the relationships with the bank) ☑ Change to be done at above mentioned Account level

Flat Number/Building NO GF 23 GROUND FLOOR, FORUM
Street/Lane NEIGHBOURHOOD MALL, COLUMBIA
City MAGADI Pin Code 396675 State MEGHALAYA Country INDIA

☐ Telephone Number ☐ Office ☐ Residence ISD CODE 0 STD CODE 369 2603959913
☑ Mode of Operation ☑ Singly ☐ Either / Survivor ☐ Jointly ☐ Anyone / Survivor

☑ Mobile Number 7611022385
☐ E-Mail Address rickyy40@thomas.com
Please sign in case Changes required in Mobile No/E-mail ID — Customer's Sign (In case of the Non-individual, please provide Sign, Name & Designation with stamp of Organization)

☑ Nomination display on Net Banking & all Customer Deliverables ☐ Yes ☐ No
☑ Request to Correct Date of Birth (provide a valid age proof) 03/07/2016
☐ Change in maturity instructions for TD a/c number 30070036949 4 (tick any one)
☐ Auto renew principal & interest ☑ Repay principal & interest ☐ Auto renew principal & pay interest

Payment instructions
☑ Credit my/our other Kotak account number 40405680739
☑ Pay by Demand Draft payable at NARASAPURAM to my/our registered mailing address on record

Field Localization

Translated

kotak — Kotak Mahindra Bank

Modification Form
(Kindly fill the form in Capital Letters only)

SR created by : _____ Branch — Siebel Request No. 1 1 1 7 0 7 1 6 2

For Bank Use:
Customer Account Type:
☐ Wealth ☐ Privy ☑ Resident Individual ☐ Non Individual ☐ Non Resident

CRN 7 3 4 1 0 3 9 — Corporate CRN 6 5 7 2 1 8 3 — Date 2 9 0 4 1 9 8 4
☐ CASA — Account Number 2 0 9 9 0 0 0 3 0 8 2 0
☑ Demat — Client ID 2 5 8 2 5 5 6 1 — ☑ Investment Account — Investment A/c No. 3 3 5 8 9 6 6

I/We
MRS SMT BHUPENDRI
MRS BODDHI SINGH
request you to update your records as per the details provided below.

To update
☐ Name* MRS VINCKEY SINGH
☑ Office / Indian (in case of NRI/PIO) Address
☑ Please tick if your Office address is same as your mailing address (where all communications will be sent)
☑ Change to be done at CRN level (i.e. for all the relationships with the bank) ☑ Change to be done at above mentioned Account level
No. 24-18-12, SRI SAI TOWERS, BAVAJIPET
5th LINE, NEAR SARABAIH TEMPLE
PATUR 231205 DAMAN AND DIU INDIA

☑ Residence / Overseas (in case of NRI/PIO) Address
☑ Please tick if your Residence address is same as your mailing address (where all communications will be sent)
☐ Change to be done at CRN level (i.e. for all the relationships with the bank) ☑ Change to be done at above mentioned Account level
R2BP 237/1 GALI NO-3913, INDRA PARK
PALAM COLONY, UTTAM BAKERY
WARA SEONI 389232 MEGHALAYA INDIA

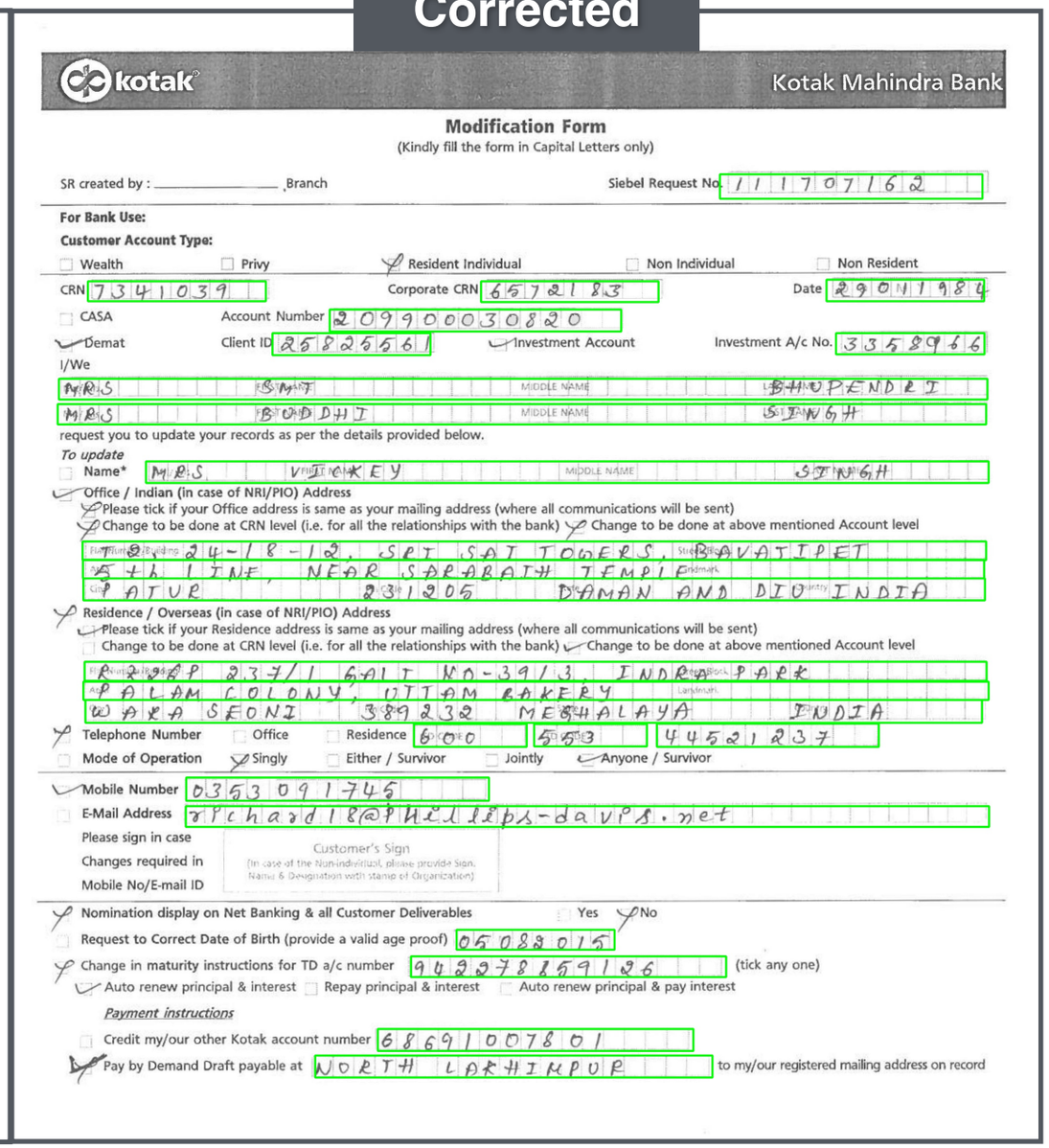
☑ Telephone Number ☐ Office ☐ Residence 6 0 0 5 5 3 4 4 5 2 1 2 3 7
☐ Mode of Operation ☑ Singly ☐ Either / Survivor ☐ Jointly ☑ Anyone / Survivor

☑ Mobile Number 0 3 5 3 0 9 1 7 4 5
☐ E-Mail Address richard18@hellebs-davis.net
Please sign in case Changes required in Mobile No/E-mail ID — Customer's Sign (In case of the Non-individual, please provide Sign, Name & Designation with stamp of Organization)

☑ Nomination display on Net Banking & all Customer Deliverables ☐ Yes ☑ No
☐ Request to Correct Date of Birth (provide a valid age proof) 0 5 0 8 2 0 1 5
☑ Change in maturity instructions for TD a/c number 9 4 2 2 7 8 8 5 9 1 2 6 (tick any one)
☑ Auto renew principal & interest ☐ Repay principal & interest ☐ Auto renew principal & pay interest

Payment instructions
☐ Credit my/our other Kotak account number 6 8 6 9 1 0 0 7 8 0 1
☑ Pay by Demand Draft payable at NORTH LAKHIMPUR to my/our registered mailing address on record

Corrected



kotak — Kotak Mahindra Bank

Modification Form
(Kindly fill the form in Capital Letters only)

SR created by : _____ Branch — Siebel Request No 1 1 1 7 0 7 1 6 2

For Bank Use:
Customer Account Type:
☐ Wealth ☐ Privy ☑ Resident Individual ☐ Non Individual ☐ Non Resident

CRN 7 3 4 1 0 3 9 — Corporate CRN 6 5 7 2 1 8 3 — Date 2 9 0 4 1 9 8 4
☐ CASA — Account Number 2 0 9 9 0 0 0 3 0 8 2 0
☑ Demat — Client ID 2 5 8 2 5 5 6 1 — ☑ Investment Account — Investment A/c No. 3 3 5 8 9 6 6

I/We
MRS SMT BHUPENDRI
MRS BODDHI SINGH
request you to update your records as per the details provided below.

To update
☐ Name* MRS VINCKEY SINGH
☑ Office / Indian (in case of NRI/PIO) Address
☑ Please tick if your Office address is same as your mailing address (where all communications will be sent)
☑ Change to be done at CRN level (i.e. for all the relationships with the bank) ☑ Change to be done at above mentioned Account level
No. 24-18-12, SRI SAI TOWERS, BAVAJIPET
5th LINE, NEAR SARABAIH TEMPLE
PATUR 231205 DAMAN AND DIU INDIA

☑ Residence / Overseas (in case of NRI/PIO) Address
☑ Please tick if your Residence address is same as your mailing address (where all communications will be sent)
☐ Change to be done at CRN level (i.e. for all the relationships with the bank) ☑ Change to be done at above mentioned Account level
R2BP 237/1 GALI NO-3913, INDRA PARK
PALAM COLONY, UTTAM BAKERY
WARA SEONI 389232 MEGHALAYA INDIA

☑ Telephone Number ☐ Office ☐ Residence 6 0 0 5 5 3 4 4 5 2 1 2 3 7
☐ Mode of Operation ☑ Singly ☐ Either / Survivor ☐ Jointly ☑ Anyone / Survivor

☑ Mobile Number 0 3 5 3 0 9 1 7 4 5
☐ E-Mail Address richard18@hellebs-davis.net
Please sign in case Changes required in Mobile No/E-mail ID — Customer's Sign (In case of the Non-individual, please provide Sign, Name & Designation with stamp of Organization)

☑ Nomination display on Net Banking & all Customer Deliverables ☐ Yes ☑ No
☐ Request to Correct Date of Birth (provide a valid age proof) 0 5 0 8 2 0 1 5
☑ Change in maturity instructions for TD a/c number 9 4 2 2 7 8 8 5 9 1 2 6 (tick any one)
☑ Auto renew principal & interest ☐ Repay principal & interest ☐ Auto renew principal & pay interest

Payment instructions
☐ Credit my/our other Kotak account number 6 8 6 9 1 0 0 7 8 0 1
☑ Pay by Demand Draft payable at NORTH LAKHIMPUR to my/our registered mailing address on record

What’s next ?

1. **Support for Signatures: Localization and Verification**
2. **Document Page Classification**